GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 4, 2005, 11:05:21 ; Search time 42 Seconds
(without alignments)
76.426 Million cell updates/sec

Title: US-09-939-780-3
Perfect score: 244
Sequence: 1 GGGGWGQGGSHSQWNKPSKP.....NMKHVAGAAAGAVVGGLGGY 43

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
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6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	216	88.5	255	1	US-08-242-188-4	Sequence 4, Appli
2	216	88.5	255	1	US-08-509-261A-4	Sequence 4, Appli
3	216	88.5	255	1	US-08-660-626-10	Sequence 10, Appl
4	216	88.5	255	1	US-08-692-892-4	Sequence 4, Appli
5	216	88.5	255	2	US-08-713-939A-4	Sequence 4, Appli
6	216	88.5	255	2	US-08-868-162A-24	Sequence 24, Appl
7	216	88.5	255	3	US-09-031-168-10	Sequence 10, Appl
8	216	88.5	255	3	US-09-036-579-4	Sequence 4, Appli
9	216	88.5	255	3	US-09-550-374-4	Sequence 4, Appli
10	216	88.5	255	4	US-09-943-906-4	Sequence 4, Appli
11	216	88.5	255	4	US-09-669-516C-10	Sequence 10, Appl
12	216	88.5	256	3	US-09-128-450-22	Sequence 22, Appl
13	216	88.5	256	3	US-09-823-494-22	Sequence 22, Appl
14	210	86.1	256	4	US-09-431-887-25	Sequence 25, Appl
15	210	86.1	256	4	US-09-431-887-28	Sequence 28, Appl
16	209	85.7	219	4	US-09-380-015B-2	Sequence 2, Appli
17	209	85.7	263	1	US-08-242-188-3	Sequence 3, Appli
18	209	85.7	263	1	US-08-509-261A-3	Sequence 3, Appli
19	209	85.7	263	1	US-08-660-626-9	Sequence 9, Appli
20	209	85.7	263	1	US-08-692-892-3	Sequence 3, Appli
21	209	85.7	263	2	US-08-713-939A-3	Sequence 3, Appli
22	209	85.7	263	2	US-08-868-162A-23	Sequence 23, Appl
23	209	85.7	263	3	US-09-031-168-9	Sequence 9, Appli
24	209	85.7	263	3	US-09-036-579-3	Sequence 3, Appli
25	209	85.7	263	3	US-09-550-374-3	Sequence 3, Appli
26	209	85.7	263	4	US-09-943-906-3	Sequence 3, Appli
27	209	85.7	263	4	US-09-669-516C-9	Sequence 9, Appli
28	209	85.7	264	3	US-09-128-450-21	Sequence 21, Appl
29	209	85.7	264	3	US-09-823-494-21	Sequence 21, Appl
30	209	85.7	264	4	US-09-627-218B-11	Sequence 11, Appl
31	207	84.8	256	4	US-09-431-887-26	Sequence 26, Appl
32	203	83.2	264	4	US-09-431-887-27	Sequence 27, Appl
33	196.5	80.5	252	4	US-09-431-887-13	Sequence 13, Appl
34	195.5	80.1	257	4	US-09-431-887-29	Sequence 29, Appl
35	194	79.5	264	4	US-09-431-887-24	Sequence 24, Appl
36	193.5	79.3	253	1	US-08-242-188-2	Sequence 2, Appli
37	193.5	79.3	253	1	US-08-509-261A-2	Sequence 2, Appli
38	193.5	79.3	253	1	US-08-660-626-8	Sequence 8, Appli
39	193.5	79.3	253	1	US-08-692-892-2	Sequence 2, Appli
40	193.5	79.3	253	2	US-08-713-939A-2	Sequence 2, Appli
41	193.5	79.3	253	2	US-08-868-162A-22	Sequence 22, Appl
42	193.5	79.3	253	3	US-09-031-168-8	Sequence 8, Appli
43	193.5	79.3	253	3	US-09-128-450-20	Sequence 20, Appl
44	193.5	79.3	253	3	US-09-036-579-2	Sequence 2, Appli
45	193.5	79.3	253	3	US-09-823-494-20	Sequence 20, Appl

ALIGNMENTS

RESULT 1
US-08-242-188-4
; Sequence 4, Application US/08242188
; Patent No. 5565186
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Scott, Michael R.
; APPLICANT: Telling, Glenn
; TITLE OF INVENTION: METHOD OF DETECTING PRIONS IN A SAMPLE
; TITLE OF INVENTION: AND TRANSGENIC ANIMAL USED FOR SAME
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Karl Bosicevic
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: USA
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/242,188
; FILING DATE: 13-MAY-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Bosicevic, Karl
; REGISTRATION NUMBER: 28,807
; REFERENCE/DOCKET NUMBER: 06510/014001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 854-5277
; TELEFAX: (415) 854-0875
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 255 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; ORIGINAL SOURCE:
; ORGANISM: SHEEP PRION PROTEIN, ShPrP
US-08-242-188-4

Query Match 88.5%; Score 216; DB 1; Length 255;
Best Local Similarity 95.5%; Pred. No. 3.9e-17;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43

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Db          88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 2
US-08-509-261A-4
; Sequence 4, Application US/08509261A
; Patent No. 5763244
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  Method of Detecting Prions
;    TITLE OF INVENTION:  in a Sample and Transgenic Animal Used fore
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/509,261A
;      FILING DATE:  31-JUL-1995
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-030001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-509-261A-4

  Query Match             88.5%;  Score 216;  DB 1;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

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Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 3
US-08-660-626-10
; Sequence 10, Application US/08660626
; Patent No. 5789655
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Glenn C. Telling
;    APPLICANT:  Fred E. Cohen
;    APPLICANT:  Michael R. Scott
;    TITLE OF INVENTION:  TRANSGENIC ANIMALS EXPRESSING
;    TITLE OF INVENTION:  EPITOPE-TAGGED PROTEINS
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/660,626
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-660-626-10

  Query Match             88.5%;  Score 216;  DB 1;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

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Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 4
US-08-692-892-4
; Sequence 4, Application US/08692892
; Patent No. 5792901
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  DETECTING PRIONS IN A SAMPLE AND
;    TITLE OF INVENTION:  PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bozicevic
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/692,892
;      FILING DATE:  30-JULY-1996
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/056001
;    TELECOMMUNICATION INFORMATION:
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;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-692-892-4

  Query Match             88.5%;  Score 216;  DB 1;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

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              |||||||||||||||||| |||||||||| |||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 5
US-08-713-939A-4
; Sequence 4, Application US/08713939A
; Patent No. 5846533
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Williamson, R. Anthony
;    APPLICANT:  Burton, Dennis R.
;    TITLE OF INVENTION:  ANTIBODIES SPECIFIC FOR NATIVE PrP
;    NUMBER OF SEQUENCES:  86
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/713,939A
;      FILING DATE:  13-SEP-1996
;      CLASSIFICATION:  436
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/059001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-854-5277
;      TELEFAX:  415-854-0875
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-713-939A-4

  Query Match             88.5%;  Score 216;  DB 2;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 6
US-08-868-162A-24
; Sequence 24, Application US/08868162A
; Patent No. 5962669
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley
;    APPLICANT:  Cohen, Fred
;    APPLICANT:  James, Thomas
;    APPLICANT:  Kaneko, Kiyotoshi
;    TITLE OF INVENTION:  Prion Protein Modulator Factor
;    TITLE OF INVENTION:
;    NUMBER OF SEQUENCES:  24
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/868,162A
;      FILING DATE:  03-JUN-1997
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-083001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  24:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-868-162A-24

  Query Match             88.5%;  Score 216;  DB 2;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

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              |||||||||||||||||| |||||||||| |||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 7
US-09-031-168-10
; Sequence 10, Application US/09031168
; Patent No. 6150583
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Glenn C. Telling
;    APPLICANT:  Fred E. Cohen
;    APPLICANT:  Michael R. Scott
;    TITLE OF INVENTION:  TRANSGENIC ANIMALS EXPRESSING
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;    TITLE OF INVENTION:  EPITOPE-TAGGED PROTEINS
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/031,168
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/660,626
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-09-031-168-10

  Query Match             88.5%;  Score 216;  DB 3;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 8
US-09-036-579-4
; Sequence 4, Application US/09036579
; Patent No. 6290954
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Williamson, R. Anthony
;    APPLICANT:  Burton, Dennis R.
;    TITLE OF INVENTION:  ANTIBODIES SPECIFIC FOR NATIVE PrP
;    NUMBER OF SEQUENCES:  86
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/036,579
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/713,939
;      FILING DATE:  13-SEP-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/059001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-854-5277
;      TELEFAX:  415-854-0875
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-09-036-579-4

  Query Match             88.5%;  Score 216;  DB 3;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

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              |||||||||||||||||| |||||||||| |||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 9
US-09-550-374-4
; Sequence 4, Application US/09550374
; Patent No. 6372214
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Williamson, R. Anthony
;    APPLICANT:  Burton, Dennis R.
;    TITLE OF INVENTION:  ANTIBODIES SPECIFIC FOR NATIVE PrP
;    NUMBER OF SEQUENCES:  86
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/550,374
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  09/036,579
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/059001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-854-5277
;      TELEFAX:  415-854-0875
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
```

```
;    MOLECULE TYPE:  peptide
US-09-550-374-4

  Query Match             88.5%;  Score 216;  DB 3;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 10
US-09-943-906-4
; Sequence 4, Application US/09943906
; Patent No. 6562341
;   GENERAL INFORMATION:
;        APPLICANT: Prusiner, Stanley B.
;                   Williamson, R. Anthony
;                   Burton, Dennis R.
;        TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
;        NUMBER OF SEQUENCES: 86
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 2200 Sand Hill Road
;             CITY: Menlo Park
;             STATE: CA
;             COUNTRY: U.S.A.
;             ZIP: 94025
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
;             OPERATING SYSTEM: DOS
;             SOFTWARE: FastSEQ Version 2.0
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/943,906
;             FILING DATE: 30-Aug-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 09/550,374
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bozicevic, Karl
;             REGISTRATION NUMBER: 28,807
;             REFERENCE/DOCKET NUMBER: 06510/059001
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 415-854-5277
;             TELEFAX: 415-854-0875
;             TELEX: <Unknown>
;   INFORMATION FOR SEQ ID NO: 4:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 255 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-943-906-4

  Query Match             88.5%;  Score 216;  DB 4;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 11
US-09-669-516C-10
; Sequence 10, Application US/09669516C
; Patent No. 6602672
; GENERAL INFORMATION:
;  APPLICANT: Prusiner, Stanley B.
;  APPLICANT:  Telling, Glenn C.
;  APPLICANT:  Cohen, Fred E.
;  APPLICANT:  Scott, Michael R.
;  TITLE OF INVENTION: RECOMBINANT CONSTRUCT ENCODING EPITOPE
;  TITLE OF INVENTION:  TAGGED PrP PROTEIN
;  FILE REFERENCE: UCAL-045CON
;  CURRENT APPLICATION NUMBER: US/09/669,516C
;  CURRENT FILING DATE:  2000-09-25
;  PRIOR APPLICATION NUMBER: 09/031,168
;  PRIOR FILING DATE: 1998-02-26
;  PRIOR APPLICATION NUMBER: 08/660,626
;  PRIOR FILING DATE: 1996-06-06
;  PRIOR APPLICATION NUMBER: 08/521,992
;  PRIOR FILING DATE: 1995-08-31
;  PRIOR APPLICATION NUMBER: 08/509,261
;  PRIOR FILING DATE: 1995-07-31
;  PRIOR APPLICATION NUMBER: 08/242,188
;  PRIOR FILING DATE: 1994-05-13
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
;   LENGTH: 255
;   TYPE: PRT
;   ORGANISM: bovine sp.
US-09-669-516C-10

  Query Match             88.5%;  Score 216;  DB 4;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 12
US-09-128-450-22
; Sequence 22, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
;  APPLICANT: Chesebro, Bruce W
;  APPLICANT:  Caughey, Byron W
;  APPLICANT:  Chabry, Joelle
;  APPLICANT:  Priola, Susette
;  TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
;  TITLE OF INVENTION:  Protein
;  FILE REFERENCE: 50121
;  CURRENT APPLICATION NUMBER: US/09/128,450
;  CURRENT FILING DATE:  1998-08-03
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Ovis aries
US-09-128-450-22

  Query Match             88.5%;  Score 216;  DB 3;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 3.9e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| ||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 13
US-09-823-494-22
; Sequence 22, Application US/09823494
; Patent No. 6355610
; GENERAL INFORMATION:
;  APPLICANT: Chesebro, Bruce W
```

; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis aries
US-09-823-494-22

Query Match 88.5%; Score 216; DB 3; Length 256;
Best Local Similarity 95.5%; Pred. No. 3.9e-17;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| |||||||||||||
Db 89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

RESULT 14
US-09-431-887-25
; Sequence 25, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/09/431,887
; CURRENT FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 25
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis sp.
US-09-431-887-25

Query Match 86.1%; Score 210; DB 4; Length 256;
Best Local Similarity 95.3%; Pred. No. 1.9e-16;
Matches 41; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 2 GGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| |||||||||||||
Db 90 GGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

RESULT 15
US-09-431-887-28
; Sequence 28, Application US/09431887
; Patent No. 6534036
; GENERAL INFORMATION:
; APPLICANT: D-Gen Limited
; TITLE OF INVENTION: BIOLOGICAL MATERIALS AND METHODS USEFUL IN THE
; TITLE OF INVENTION: DIAGNOSIS AND TREATMENT OF PRION DISEASE
; FILE REFERENCE: ICOT/P21952
; CURRENT APPLICATION NUMBER: US/09/431,887
; CURRENT FILING DATE: 1999-11-02
; PRIOR APPLICATION NUMBER: GB 9824091.4
; PRIOR FILING DATE: 1999-11-04
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 28
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Capra hircus
US-09-431-887-28

Query Match 86.1%; Score 210; DB 4; Length 256;
Best Local Similarity 95.3%; Pred. No. 1.9e-16;
Matches 41; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 2 GGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| |||||||||||||
Db 90 GGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

Search completed: March 4, 2005, 11:11:09
Job time : 43 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 4, 2005, 11:05:20 ; Search time 70 Seconds
(without alignments)
237.581 Million cell updates/sec

Title: US-09-939-780-3
Perfect score: 244
Sequence: 1 GGGGWGQGGSHSQWNKPSKP.....NMKHVAGAAAGAVVGGLGGY 43

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	244	100.0	178	2	AAW70280	Aaw70280 Peptide s
2	233.5	95.7	178	5	ABG31260	Abg31260 N termina
3	216	88.5	255	2	AAR86717	Aar86717 Sheep pri
4	216	88.5	255	2	AAW69662	Aaw69662 Sheep pri
5	216	88.5	255	2	AAW85903	Aaw85903 Sheep pri
6	216	88.5	255	4	AAG65855	Aag65855 Ovine pri
7	216	88.5	255	5	ABP51789	Abp51789 Ovine pri
8	216	88.5	255	6	ABU58870	Abu58870 Sheep pri
9	216	88.5	255	6	AAE33229	Aae33229 Ovine PrP
10	216	88.5	255	8	ADK15536	Adk15536 Ovine PrP
11	216	88.5	255	8	ADJ10165	Adj10165 Sheep cel
12	216	88.5	256	1	AAP93674	Aap93674 Sheep PrP
13	216	88.5	256	4	AAB72362	Aab72362 Sheep pri
14	216	88.5	256	4	AAB72365	Aab72365 Goat prio
15	216	88.5	256	4	AAE08571	Aae08571 Sheep pri
16	216	88.5	256	4	AAB61771	Aab61771 Sheep pri
17	216	88.5	256	4	AAB82114	Aab82114 Sheep Prp
18	216	88.5	256	5	AAE15605	Aae15605 Sheep PrP
19	216	88.5	256	5	AAE29225	Aae29225 Sheep pri
20	216	88.5	256	6	ABU07875	Abu07875 Ovine pri
21	216	88.5	256	6	ABP57901	Abp57901 Sheep BSE
22	216	88.5	256	6	ABR42796	Abr42796 Sheep pri
23	216	88.5	256	7	ADD24195	Add24195 Goat prio
24	216	88.5	256	7	ADD24188	Add24188 Sheep pri
25	216	88.5	256	7	ADE06741	Ade06741 Sheep pri
26	216	88.5	256	7	ADE06742	Ade06742 Sheep pri
27	216	88.5	256	8	ADH44554	Adh44554 Ovine pri
28	216	88.5	256	8	ADH44564	Adh44564 Feline pr
29	216	88.5	256	8	ADK15537	Adk15537 Ovine PrP
30	213	87.3	211	8	ADH44566	Adh44566 Prion pro
31	213	87.3	256	4	AAB72363	Aab72363 Antelope
32	213	87.3	256	4	AAE08572	Aae08572 Oryx demm
33	213	87.3	256	6	ABP57902	Abp57902 White tai
34	213	87.3	256	6	ABP57903	Abp57903 Mule deer
35	213	87.3	256	6	ABP57904	Abp57904 Elk BSE-r
36	213	87.3	256	7	ADD24189	Add24189 Elk prion
37	213	87.3	256	7	ADD24190	Add24190 Mule deer
38	213	87.3	256	8	ADH44565	Adh44565 Red deer
39	211	86.5	256	5	ABB04423	Abb04423 Goat prio
40	211	86.5	256	5	ABB04422	Abb04422 Sheep pri
41	211	86.5	256	6	ABR42797	Abr42797 Goat prio
42	209	85.7	56	8	ADL15231	Adl15231 Bovine pr
43	209	85.7	217	3	AAB07317	Aab07317 Cattle pr
44	209	85.7	217	3	AAB07328	Aab07328 Cattle pr
45	209	85.7	219	2	AAW70261	Aaw70261 Bovine pr

ALIGNMENTS

RESULT 1
AAW70280
ID AAW70280 standard; peptide; 178 AA.
XX
AC AAW70280;
XX
DT 06-NOV-1998 (first entry)
XX
DE Peptide sequences used to raise antibodies against prion protein.
XX
KW Spinal cord; cattle; sheep; pig; bovine spongiform encephalopathy; BSE;
KW scrapie; transmissable spongiform encephalopathy; TSE;
KW immunological assay; scrapie prion protein; prpSC.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Region 28. .61
FT /note= "Synthetic sequence used to raise antibody against
FT prpSC"
FT Region 90. .128
FT /note= "Synthetic sequence used to raise antibody against
FT prpSC"
XX
PN WO9835236-A2.
XX
PD 13-AUG-1998.
XX
PF 06-FEB-1998; 98WO-IE000007.
XX
PR 06-FEB-1997; 97IE-00000081.
PR 24-MAR-1997; 97IE-00000228.
PR 01-MAY-1997; 97IE-00000325.
XX
PA (ENFE-) ENFER TECHNOLOGY LTD.
XX
PI O'connor M;
XX
DR WPI; 1998-447377/38.
XX
PT Detecting pathogenic prion(s) in animal carcasses - by reaction with
PT specific labelled antibody, used to detect those carrying agents for
PT bovine spongiform encephalopathy and scrapie.
XX
PS Claim 3; Page 23; 25pp; English.
XX
CC The invention claims to provide a method for detecting transmissable
CC spongiform encephalopathies (TSE) in animals and in animal carcasses. The

CC method comprises of an immunological assay whereby the animal test sample
CC is reacted with a labelled antibody against scrapie prion protein (prpSC)
CC and the amount of bound labelled antibody is then detected. The anti-
CC prpSC antibodies used in the assay are raised against fragments of the
CC present synthetic peptide shown. The peptide fragments preferred by the
CC inventors are shown in the features table. The method is claimed to be
CC useful when applied to samples, particularly a cross-section of the
CC spinal cord, from cattle, sheep and pig carcasses for detection of bovine
CC spongiform encephalopathy (BSE) or scrapie
XX
SQ Sequence 178 AA;

Query Match 100.0%; Score 244; DB 2; Length 178;
Best Local Similarity 100.0%; Pred. No. 3.3e-19;
Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAGAAAGAVVGGLGGY 43
||||||||||||||||||||||||||||||||||||||||||||
Db 90 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAGAAAGAVVGGLGGY 132

RESULT 2
ABG31260
ID ABG31260 standard; protein; 178 AA.
XX
AC ABG31260;
XX
DT 21-OCT-2002 (first entry)
XX
DE N terminal prion protein (PrP) sequence.
XX
KW Prion; PrP; Transmissible Spongiform Encephalopathy; TSE;
KW Bovine Spongiform Encephalopathy; Scrapie; Creutzfeldt-Jacob Disease;
KW Kuru; antigen.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT Region 88. .116
FT /note= "Antigenic epitope"
XX
PN WO200257789-A2.
XX
PD 25-JUL-2002.
XX
PF 18-JAN-2002; 2002WO-IE000006.
XX
PR 19-JAN-2001; 2001IE-00000042.
XX
PA (ENFE-) ENFER TECHNOLOGY LTD.
XX
PI O'connor M;
XX
DR WPI; 2002-599727/64.
XX
PT Detecting Transmissible Spongiform Encephalopathies, e.g. Creutzfeldt-
PT Jacob Disease or Kuru, in humans and animals comprises the addition of a
PT prion-specific antibody and an agent that degrades normal or abnormal
PT prion proteins.
XX
PS Example; Page 15; 28pp; English.
XX
CC This invention relates to a novel method for detecting Transmissible
CC Spongiform Encephalopathies (TSE) comprising fixing tissue, blood or
CC blood derivative sample, adding a prion-specific antibody and an agent
CC that degrades normal or abnormal prion proteins, and detecting the
CC binding of the antibody to the sample. The method of the invention is
CC useful in detecting Transmissible Spongiform Encephalopathies, e.g.
CC Bovine Spongiform Encephalopathy, Scrapie, Creutzfeldt-Jacob Disease, or
CC Kuru, in humans or animals. This method can also be useful in testing
CC animals, pharmaceuticals and humans for the infective agent responsible
CC for TSE. The method provides a multi-tissue test system which can be used
CC on both blood or blood-derived products and solid tissues from living
CC animals or human beings, as compared to previous methods of detecting TSE
CC that are carried out only in post-mortem examinations. This allows
CC infected animals to be removed from the population to prevent the spread
CC of the infection, and also allows infected humans to be identified, with
CC the possibility that medical treatment could be administered and a
CC possible cure could be found for the disease. This method is rapid, with
CC the result being available in a matter of hours, cheap, reliable, and
CC user-friendly. The present sequence represents the N terminal sequence of
CC the prion protein (PrP) used to generate the anti-PrP antibody used in
CC the method of the invention
XX
SQ Sequence 178 AA;

Query Match 95.7%; Score 233.5; DB 5; Length 178;
Best Local Similarity 97.7%; Pred. No. 4.8e-18;
Matches 43; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
|||||||||||||||||||||||||||||| ||||||||||||
Db 89 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAGAAAAGAVVGGLGGY 132

RESULT 3
AAR86717
ID AAR86717 standard; protein; 255 AA.
XX
AC AAR86717;
XX
DT 15-OCT-1996 (first entry)
XX
DE Sheep prion protein, HuPrP.
XX
KW Chimeric gene; chimeric prion; transgenic animal; diagnosis;
KW spongiform encephalopathy; PrP; central nervous system; CNS;
KW Creutzfeld-Jakob disease; CJD; BSE.
XX
OS Ovis aries.
XX
PN WO9531466-A1.
XX
PD 23-NOV-1995.
XX
PF 10-APR-1995; 95WO-US004426.
XX
PR 13-MAY-1994; 94US-00242188.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Prusiner SB, Scott MR, Telling G;
XX
DR WPI; 1996-010868/01.
XX
PT Chimeric prion protein gene - for formation of a transgenic animal
PT susceptible to prion infection by prion(s) normally specific for a
PT different species.
XX
PS Disclosure; Page 43-44; 65pp; English.
XX
CC Pathogenic prions in a sample can be detected by injecting the sample to
CC be tested into a transgenic mouse. The mouse genome includes a chimeric
CC PrP gene in which the gene includes a portion of a gene of the animal
CC (e.g. sheep) in danger of infection from prions in the sample. Preferred
CC transgenic mice express a chimeric prion protein (PrP) in which a segment
CC of the mouse PrP, MoPrP, is replaced with the corresponding sheep PrP
CC sequence
XX
SQ Sequence 255 AA;

Query Match 88.5%; Score 216; DB 2; Length 255;
Best Local Similarity 95.5%; Pred. No. 6.1e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43

```
                    |||||||||||||||||||| |||||||||| ||||||||||||
Db          88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 4
AAW69662
ID   AAW69662 standard; protein; 255 AA.
XX
AC   AAW69662;
XX
DT   25-MAR-2003  (revised)
DT   19-OCT-1998  (first entry)
XX
DE   Sheep prion protein BoPrP.
XX
KW   Sheep; prion protein; PrP; transgenic animal; artificial gene;
KW   Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.
XX
OS   Ovis sp.
XX
PN   US5792901-A.
XX
PD   11-AUG-1998.
XX
PF   30-JUL-1996;   96US-00692892.
XX
PR   13-MAY-1994;   94US-00242188.
PR   31-JUL-1995;   95US-00509261.
PR   31-AUG-1995;   95US-00521992.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Scott MR,  Telling GC,  Prusiner SB;
XX
DR   WPI; 1998-456207/39.
XX
PT   Transgenic mouse with altered PrP gene - for detecting disease-causing
PT   prions.
XX
PS   Example 8; Fig 5; 37pp; English.
XX
CC   A transgenic mouse has been developed which comprises a genome in which
CC   both alleles of an endogenous PrP (prion protein) gene of the mouse are
CC   ablated, the genome containing operatively inserted all exogenous non-
CC   mouse PrP gene. The mouse is susceptible to infection with prions which
CC   generally only infect a genetically diverse mammal due to the presence of
CC   the exogenous PrP gene and ablated endogenous PrP gene. It exhibits
CC   symptoms of prion disease within 200 days or less after inoculation with
CC   prions which generally only infect a genetically diverse mammal. Also
CC   described in the present invention are: (A) a method of producing the
CC   transgenic mouse; and (B) determining the presence of infectious prions
CC   in a sample obtained from a bovine. The transgenic mouse is used to
CC   detect for Creutzfeldt Jakob disease (CJD) a fatal neurodegenerative
CC   disease of humans caused by prions. The present sequence represents sheep
CC   prion protein (ShPrP), from the present invention. (Updated on 25-MAR-
CC   2003 to correct PF field.)
XX
SQ   Sequence 255 AA;

  Query Match             88.5%;  Score 216;  DB 2;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 5
AAW85903
ID   AAW85903 standard; peptide; 255 AA.
XX
AC   AAW85903;
XX
DT   12-FEB-1999  (first entry)
XX
DE   Sheep prion protein (PrP) sequence.
XX
KW   PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
KW   Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
KW   cosmetic; therapeutic; sheep.
XX
OS   Ovis sp.
XX
PN   US5846533-A.
XX
PD   08-DEC-1998.
XX
PF   13-SEP-1996;   96US-00713939.
XX
PR   14-SEP-1995;   95US-00528104.
XX
PA   (REGC ) UNIV CALIFORNIA.
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Prusiner SB,  Williamson RA,  Burton DR;
XX
DR   WPI; 1999-058996/05.
XX
PT   Antibody specific for scrapie isoform of prion protein - useful for
PT   diagnosis and therapy.
XX
PS   Disclosure; Col 43-46; 58pp; English.
XX
CC   This represents a sheep prion protein (PrP) sequence. The invention
CC   relates to an antibody that is capable of binding to native PrP(Sc), the
CC   scrapie isoform of PrP. The antibody is produced by a method that
CC   comprises synthesising a library of antibodies on phages, contacting the
CC   phages with a composition containing PrP proteins, isolating phages that
CC   bind to native PrP(Sc) in situ, obtaining an antibody from the phages,
CC   and optionally analysing the phages to determined a nucleic acid sequence
CC   encoding an amino acid sequence to which the native PrP(Sc) binds. The
CC   antibody is used to detect disease-associated PrP, especially in
CC   Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They
CC   can also be used to neutralise the infectivity of PrP(Sc). Assays using
CC   the antibodies can be used to screen for disease-associated PrP in
CC   pharmaceutical products, foods and cosmetics or for therapeutic purposes
XX
SQ   Sequence 255 AA;

  Query Match             88.5%;  Score 216;  DB 2;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 6
AAG65855
ID   AAG65855 standard; protein; 255 AA.
XX
AC   AAG65855;
XX
DT   11-FEB-2002  (first entry)
XX
DE   Ovine prion protein (PrP) sequence.
XX
KW   PrP; prion protein; Creutzfeldt-Jakob disease; familial insomnia; PrP-Sc;
KW   scrapie; Gerstmann-Strassler-Scheinker disease.
XX
OS   Ovis sp.
XX
PN   US6290954-B1.
XX
```

PD 18-SEP-2001.
XX
PF 06-MAR-1998; 98US-00036579.
XX
PR 14-SEP-1995; 95US-00528104.
PR 13-SEP-1996; 96US-00713939.
XX
PA (SCRI) SCRIPPS RES INST.
XX
PI Prusiner SB, Williamson RA, Burton DR;
XX
DR WPI; 2001-637939/73.
XX
PT Detecting a scrapie isoform of the prion protein (PrP-Sc) in a source,
PT particularly useful for detecting e.g. Creutzfeldt-Jakob disease or
PT Gerstmann-Strassler-Scheinker disease, by contacting the source with PrP-
PT Sc antibodies.
XX
PS Disclosure; Fig 4; 58pp; English.
XX
CC The invention provides a method for detecting a scrapie isoform of the
CC prion protein (PrP-Sc) in a source. The method involves contacting the
CC source suspected of containing native PrP-Sc with a diagnostic amount of
CC an antibody characterized by its ability to bind to native PrP-Sc in
CC situ. The method is useful for detecting PrP-Sc in a source, which is
CC particularly useful for detecting Creutzfeldt-Jakob disease, fatal
CC familial insomnia or Gerstmann-Strassler-Scheinker disease. The present
CC sequence represents the ovine PrP sequence
XX
SQ Sequence 255 AA;

Query Match 88.5%; Score 216; DB 4; Length 255;
Best Local Similarity 95.5%; Pred. No. 6.1e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130

RESULT 7
ABP51789
ID ABP51789 standard; protein; 255 AA.
XX
AC ABP51789;
XX
DT 03-OCT-2002 (first entry)
XX
DE Ovine prion protein (PrP) SEQ ID NO:4.
XX
KW Prion protein; PrP; scrapie; PrPSc; prion disease; immunoassay;
KW detection.
XX
OS Ovis sp.
XX
PN US6372214-B1.
XX
PD 16-APR-2002.
XX
PF 13-APR-2000; 2000US-00550374.
XX
PR 14-SEP-1995; 95US-00528104.
PR 13-SEP-1996; 96US-00713939.
PR 06-MAR-1998; 98US-00036579.
XX
PA (REGC) UNIV CALIFORNIA.
PA (SCRI) SCRIPPS RES INST.
XX
PI Prusiner SB, Williamson RA, Burton DR;
XX
DR WPI; 2002-433675/46.
XX
PT Immunoassays for detecting scrapie isoforms of prion protein (PrPSc) and
PT for purifying PrPSc from samples, useful e.g. in diagnosing PrPSc disease
PT and testing pharmaceuticals for contamination.
XX
PS Disclosure; Fig 4; 58pp; English.
XX
CC The present invention describes methods for detecting scrapie isoforms of
CC prion protein (PrPSc) infection in dead animals, purifying materials
CC suspected of containing PrPSc proteins and treating materials, using
CC antibodies specific for PrPSc. Also described: (1) method of determining
CC PrPSc infection in a dead animal, comprising: (a) extracting tissue from
CC an animal that has died; (b) contacting the tissue with an antibody
CC characterised by its ability to bind to native PrPSc in situ (the
CC antibody binds to a form of PrPSc specific to the animal that has died);
CC and (c) determining if the antibody has bound to PrPSc (the presence of
CC PrPSc in the tissue is indicative of PrPSc infection); (2) a method of
CC purifying a material suspected of containing a PrPSc protein, comprising:
CC (a) contacting the material with an antibody (characterized by its
CC ability to bind native PrPSc in situ) which is bound to a support surface
CC ; and (b) removing material not bound to the antibody; (3) a method of
CC treating a material, comprising applying (to the material) an antibody
CC that binds native PrPSc in situ. The methods are used for diagnosing and
CC detecting prion disease (scrapie) in dead animal tissue (i.e.
CC immunoassays), for separating PrPSc proteins from biological samples
CC (i.e. immunopurification) and for treating materials. The present
CC sequence represents the ovine prion protein (PrP) which is given in the
CC exemplification of the present invention
XX
SQ Sequence 255 AA;

Query Match 88.5%; Score 216; DB 5; Length 255;
Best Local Similarity 95.5%; Pred. No. 6.1e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130

RESULT 8
ABU58870
ID ABU58870 standard; protein; 255 AA.
XX
AC ABU58870;
XX
DT 15-APR-2003 (first entry)
XX
DE Sheep prion protein (PrP).
XX
KW Prion protein; native prion protein; PrPSc; phage display library;
KW pharmaceutical; food; cosmetic; prion neutralisation; anti-PrP-antibody;
KW scrapie; bovine spongiform encephalopathy; BSE; mad cow disease;
KW feline spongiform encephalopathy.
XX
OS Ovis sp.
XX
PN US2002150571-A1.
XX
PD 17-OCT-2002.
XX
PF 30-AUG-2001; 2001US-00943906.
XX
PR 14-SEP-1995; 95US-00528104.
PR 13-SEP-1996; 96US-00713939.
PR 06-MAR-1998; 98US-00036579.
PR 13-APR-2000; 2000US-00550374.
XX
PA (PRUS/) PRUSINER S B.
PA (WILL/) WILLIAMSON R A.
PA (BURT/) BURTON D R.
XX
PI Prusiner SB, Williamson RA, Burton DR;
XX
DR WPI; 2003-198264/19.

XX
PT Novel antibody that has the ability to specifically bind to native prion
PT protein PrPSc in situ, useful for detecting human PrPSc in a source, for
PT determining the cause of death of an animal, or in therapy.
XX
PS Disclosure; Fig 4; 36pp; English.
XX
CC The invention describes an antibody (I) that has the ability to
CC specifically bind to native prion protein PrPSc in situ, where (I) is
CC produced by synthesising a library of antibodies on phage, panning the
CC library against a sample by bringing the phage into contact with a
CC composition comprising PrP proteins, and isolating phage which bind PrPSc
CC protein. (I) is useful for: detecting human PrPSc in a source; for
CC determining the cause of death of an animal(e.g. scrapie, bovine
CC spongiform encephalopathy (BSE) or mad cow disease and feline spongiform
CC encephalopathy); for purifying a material suspected of containing PrPSc
CC protein, by contacting the material with a sufficient amount of (I) which
CC is bound to a support surface and removing material not bound to (I); for
CC treating a material by adding to the material a sufficient amount of (I)
CC to neutralise PrPSc protein infectivity; in an assay to screen for the
CC presence of prions (i.e. PrPSc) in products such as pharmaceuticals, food
CC or cosmetics, in prion neutralisation to purify a product, in extraction
CC of prion proteins, and in therapy. (I) provides a fast, efficient and
CC cost effective assay for detecting the presence of PrPSc in a sample, and
CC binds to a relatively high percentage of the infectious form of PrPSc.
CC This is the amino acid sequence of a prion protein used in the creation
CC of an anti-Prion protein-antibody
XX
SQ Sequence 255 AA;

Query Match 88.5%; Score 216; DB 6; Length 255;
Best Local Similarity 95.5%; Pred. No. 6.1e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130

RESULT 9
AAE33229
ID AAE33229 standard; protein; 255 AA.
XX
AC AAE33229;
XX
DT 02-MAY-2003 (first entry)
XX
DE Ovine PrP protein.
XX
KW Ovine; pathogenic; prion protein; PrPSc; kuru; Creutzfeldt-Jakob disease;
KW vaccine; neuroprotective; immunostimulant.
XX
OS Ovis sp.
XX
PN WO200287502-A2.
XX
PD 07-NOV-2002.
XX
PF 25-APR-2002; 2002WO-US013346.
XX
PR 01-MAY-2001; 2001US-0287971P.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Prusiner SB, Peretz D, Williamson RA, Burton DR;
XX
DR WPI; 2003-140150/13.
XX
PT Composition for clearing a disease conformation of a protein, especially
PT PrPSc protein, and treating, e.g., Creutzfeldt-Jakob disease comprises
PT molecules, e.g., antibodies which bind and prevent conversion to disease
PT conformation.
XX
PS Disclosure; Page 38; 38pp; English.
XX
CC The invention relates to composition for clearing a disease conformation
CC of a protein, especially pathogenic prion protein (PrPSc) from a cell.
CC The composition comprises molecules which bind a number of epitopes on a
CC first conformation of a protein, where the conversion to a second
CC conformation is prevented to allow a cell to clear protein in the second
CC conformation. The composition is useful for preventing or treating, e.g.,
CC kuru or Creutzfeldt-Jakob disease. It is also used as a vaccine. The
CC present sequence is ovine PrP protein
XX
SQ Sequence 255 AA;

Query Match 88.5%; Score 216; DB 6; Length 255;
Best Local Similarity 95.5%; Pred. No. 6.1e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130

RESULT 10
ADK15536
ID ADK15536 standard; protein; 255 AA.
XX
AC ADK15536;
XX
DT 06-MAY-2004 (first entry)
XX
DE Ovine PrP(Sc), seq id 13.
XX
KW Neuroprotective; prion disease; CpG; prion protein; PrP;
KW transmissible spongiform encephalopathy; TSE; scrapie;
KW bovine spongiform encephalopathy; BSE; variant Creutzfeldt-Jakob disease;
KW vCJD; iatrogenic Creutzfeldt-Jakob disease; iCJD.
XX
OS Ovis aries.
XX
PN WO2004007743-A2.
XX
PD 22-JAN-2004.
XX
PF 17-JUL-2003; 2003WO-IB003727.
XX
PR 17-JUL-2002; 2002US-0396432P.
XX
PA (COLE-) COLEY PHARM GMBH.
XX
PI Wagner H, Kretzschmar H, Sethi S;
XX
DR WPI; 2004-122970/12.
XX
PT Treating a prion disease, e.g. transmissible spongiform encephalopathy,
PT scrapie, bovine spongiform encephalopathy by administering a CpG nucleic
PT acid to a subject having or at risk of developing prion disease.
XX
PS Disclosure; SEQ ID NO 13; 57pp; English.
XX
CC The invention relates to a method for treating a prion disease in a
CC subject, comprising administering to a subject having or at risk of
CC developing a prion disease a CpG nucleic acid in an amount to treat the
CC prion disease. Also disclosed is a method for inducing an immune response
CC to a prion protein. The method is useful for treating prion disease, e.g.
CC transmissible spongiform encephalopathy (TSE), scrapie, bovine spongiform
CC encephalopathy (BSE), variant Creutzfeldt-Jakob disease (vCJD) or
CC iatrogenic Creutzfeldt-Jakob disease (iCJD). Sequences given in ADK15524-
CC ADK15538 represent prion proteins and nucleic acid sequences from various
CC species.
XX
SQ Sequence 255 AA;

Query Match 88.5%; Score 216; DB 8; Length 255;

```
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 11
ADJ10165
ID   ADJ10165 standard; protein; 255 AA.
XX
AC   ADJ10165;
XX
DT   18-NOV-2004  (first entry)
XX
DE   Sheep cellular prion protein (PrP) SeqID 4.
XX
KW   sheep; PrP; prion protein; PrPSc; diagnostic assay; scrapie;
KW   bovine spongiform encephalopathy; BSE; feline spongiform encephalopathy;
KW   kuru; Creutzfeldt-Jacob disease; CJD; Gerstmann-Strassler-Scheinker; GSS;
KW   fatal familial insomnia; FFI; neuroprotective.
XX
OS   Ovis sp.
XX
PN   US2003228303-A1.
XX
PD   11-DEC-2003.
XX
PF   09-MAY-2003; 2003US-00435602.
XX
PR   14-SEP-1995;   95US-00528104.
PR   13-SEP-1996;   96US-00713939.
PR   06-MAR-1998;   98US-00036579.
PR   13-APR-2000; 2000US-00550374.
PR   30-AUG-2001; 2001US-00943906.
XX
PA   (REGC ) UNIV CALIFORNIA.
PA   (SCRI ) SCRIPPS RES INST.
XX
PI   Prusiner SB,  Williamson RA,  Burton DR;
XX
DR   WPI; 2004-060976/06.
XX
PT   New antibody that binds to the scrapie isoform of prion protein (PrPSc),
PT   useful for treating scrapie, bovine spongiform encephalopathies, feline
PT   spongiform encephalopathies, kuru or Creutzfeldt-Jacob Diseases.
XX
PS   Disclosure; SEQ ID NO 4; 55pp; English.
XX
CC   This invention relates to novel antibodies that bind in situ to the
CC   scrapie isoform of the prion protein (PrPSc). Specifically, it refers to
CC   antibodies produced by phage display methodology that show a high degree
CC   of binding affinity and specificity, and can neutralise the infectivity
CC   of prions. The present invention describes using labelled antibodies for
CC   an in vivo diagnostic assay that can be used to determine the presence of
CC   human PrPSc proteins that are associated with a particular disease.
CC   Accordingly, they are also useful for treating prion protein diseases
CC   including scrapie, bovine spongiform encephalopathy (BSE), feline
CC   spongiform encephalopathy, as well as prion diseases of humans including
CC   kuru, Creutzfeldt-Jacob disease (CJD), Gerstmann-Strassler-Scheinker
CC   Disease (GSS) or fatal familial insomnia (FFI). As such, these
CC   compositions exhibit neuroprotective activity. This polypeptide sequence
CC   is the sheep prion protein (PrP) of the invention.
XX
SQ   Sequence 255 AA;

  Query Match             88.5%;  Score 216;  DB 8;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 12
AAP93674
ID   AAP93674 standard; protein; 256 AA.
XX
AC   AAP93674;
XX
DT   31-MAY-1990  (first entry)
XX
DE   Sheep PrP gene for scrapie susceptibility.
XX
KW   Scrapie; PrP gene; Bovine spongiform encephalopathy; BSE;
KW   scrapie associated fibrils; SAF.
XX
OS   Cricetulus sp.
XX
PN   WO8911545-A.
XX
PD   30-NOV-1989.
XX
PF   15-MAY-1989;   89WO-GB000522.
XX
PR   17-MAY-1988;   88GB-00011608.
XX
PA   (ANIM-) ANIMAL HEALTH LTD.
XX
PI   Hope J,  Hunter N;
XX
DR   WPI; 1989-370736/50.
DR   N-PSDB; AAN92735.
XX
PT   Detecting susceptibility to scrapie in sheep, cattle and goats - by
PT   analysing blood or tissue for polymorphism linked to susceptibility,
PT   pref. using DNA hybridisation probe.
XX
PS   Disclosure; Page; 46pp; English.
XX
CC   Sheep PrP gene product, in negative line sheep (scrapie resistant) a 5.0
CC   kb HindIII hybridised to probe pEA974, positive line sheep showed either
CC   a 3.4 kb HindIII or both 5.0 and 3.4 kb fragments. The specification
CC   gives three reading frames after base 1410. See also AAN92734
XX
SQ   Sequence 256 AA;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 13
AAB72362
ID   AAB72362 standard; peptide; 256 AA.
XX
AC   AAB72362;
XX
DT   11-SEP-2003  (revised)
DT   17-MAY-2001  (first entry)
XX
DE   Sheep prion protein cellular form (PrPc) amino acid sequence.
XX
KW   Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW   prion disease; spongiform encephalopathies; Scrapie; sheep;
KW   bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS   Ovis aries.
XX
FH   Key             Location/Qualifiers
```

```
FT   Region          176. .221
FT                   /note= "Stable region, specifically claimed in claim 3"
XX
PN   WO200107479-A2.
XX
PD   01-FEB-2001.
XX
PF   25-JUL-2000; 2000WO-GB002873.
XX
PR   27-JUL-1999;   99GB-00017491.
PR   30-JUL-1999;   99GB-00017878.
XX
PA   (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI   Collinge J,  Clarke AR,  Waltho JP,  Jackson GS,  Hosszu LLP;
XX
DR   WPI; 2001-168538/17.
XX
PT   New prion peptide for treating, preventing and/or diagnosing prion
PT   diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT   cows and Creutzfeldt-Jakob disease in humans.
XX
PS   Claim 3; Fig 5; 69pp; English.
XX
CC   This invention relates to a peptide fragment of a cellular form of prion
CC   protein PrPc located around a disulphide bond found in PrPc. The stable
CC   structure is a specific marker of PrPc but not soluble prion protein
CC   (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC   or binding agent that binds PrPc. The antibody is used to detect or
CC   remove PrPc, and may be used in preventative medicine. The antibody may
CC   be used in the prevention, treatment or diagnosis of a prion disease,
CC   e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC   spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC   (CJD) in humans. The present sequence represents the cellular form of
CC   sheep prion protein, the stable region of the protein may be used in the
CC   production of anti-PrPc antibodies. (Updated on 11-SEP-2003 to
CC   standardise OS field)
XX
SQ   Sequence 256 AA;

  Query Match             88.5%;  Score 216;  DB 4;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 14
AAB72365
ID   AAB72365 standard; peptide; 256 AA.
XX
AC   AAB72365;
XX
DT   17-MAY-2001  (first entry)
XX
DE   Goat prion protein cellular form (PrPc) amino acid sequence.
XX
KW   Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW   prion disease; spongiform encephalopathies; Scrapie; goat;
KW   bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS   Capra hircus.
XX
FH   Key             Location/Qualifiers
FT   Region          176. .221
FT                   /note= "Stable region, specifically claimed in claim 3"
XX
PN   WO200107479-A2.
XX
PD   01-FEB-2001.
XX
PF   25-JUL-2000; 2000WO-GB002873.
XX
PR   27-JUL-1999;   99GB-00017491.
PR   30-JUL-1999;   99GB-00017878.
XX
PA   (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI   Collinge J,  Clarke AR,  Waltho JP,  Jackson GS,  Hosszu LLP;
XX
DR   WPI; 2001-168538/17.
XX
PT   New prion peptide for treating, preventing and/or diagnosing prion
PT   diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT   cows and Creutzfeldt-Jakob disease in humans.
XX
PS   Claim 3; Fig 5; 69pp; English.
XX
CC   This invention relates to a peptide fragment of a cellular form of prion
CC   protein PrPc located around a disulphide bond found in PrPc. The stable
CC   structure is a specific marker of PrPc but not soluble prion protein
CC   (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC   or binding agent that binds PrPc. The antibody is used to detect or
CC   remove PrPc, and may be used in preventative medicine. The antibody may
CC   be used in the prevention, treatment or diagnosis of a prion disease,
CC   e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC   spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC   (CJD) in humans. The present sequence represents the cellular form of
CC   goat prion protein, the stable region of the protein may be used in the
CC   production of anti-PrPc antibodies
XX
SQ   Sequence 256 AA;

  Query Match             88.5%;  Score 216;  DB 4;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 6.1e-16;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 15
AAE08571
ID   AAE08571 standard; protein; 256 AA.
XX
AC   AAE08571;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Sheep prion protein.
XX
KW   Aberrant prion gene; heart anomaly; cardiac pharmaceutical; Prnp;
KW   life-style related disease; sheep.
XX
OS   Ovis sp.
XX
PN   EP1120655-A2.
XX
PD   01-AUG-2001.
XX
PF   26-JAN-2001; 2001EP-00300723.
XX
PR   27-JAN-2000; 2000JP-00019195.
XX
PA   (RIKE ) RIKEN KK.
XX
PI   Itohara S,  Onodera T,  Tsubone H;
XX
DR   WPI; 2001-524142/58.
DR   N-PSDB; AAD15273.
XX
PT   Detecting aberrant animal-derived prion gene, by introducing prion gene
PT   of an animal into a mouse to produce a prion gene modified mouse and
```

PT determining whether the prion gene modified mouse exhibits a heart
PT anomaly.
XX
PS Disclosure; Fig 2; 27pp; English.
XX
CC The invention relates to a method which is used for detecting aberrant
CC animal-derived prion gene. The method involves introducing Oryx demmah
CC prion gene (Or-Prnp) into a mouse to produce a prion gene modified mouse
CC and determining whether the prion gene modified mouse exhibit heart
CC anomalies. The prion gene modified mouse is useful for development and
CC safety testing of cardiac pharmaceuticals for human and animals having
CC underlying diseases or life-style related diseases. It is also useful for
CC detecting a drug, which reduces abnormal waves in an electrocardiogram.
CC The present sequence is sheep prion protein
XX
SQ Sequence 256 AA;

Query Match 88.5%; Score 216; DB 4; Length 256;
Best Local Similarity 95.5%; Pred. No. 6.1e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

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Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              ||||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131
```

Search completed: March 4, 2005, 11:06:40
Job time : 73 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 4, 2005, 11:05:21 ; Search time 16 Seconds
(without alignments)
258.583 Million cell updates/sec

Title: US-09-939-780-3
Perfect score: 244
Sequence: 1 GGGGWGQGGSHSQWNKPSKP.....NMKHVAGAAAGAVVGGLGGY 43

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	216	88.5	256	2	JU0268	major prion protei
2	216	88.5	256	2	S37149	prion protein - go
3	216	88.5	256	2	A54281	major prion protei
4	209	85.7	264	2	A54330	major prion protei
5	209	85.7	264	2	S37137	prion protein - gr
6	196.5	80.5	252	2	S53634	major prion protei
7	195.5	80.1	257	2	JQ1900	major prion protei
8	193.5	79.3	241	2	S71048	major prion protei
9	193.5	79.3	253	1	UJHU	major prion protei
10	193.5	79.3	253	2	S53617	major prion protei
11	193.5	79.3	253	2	S53635	prion protein - si
12	193.5	79.3	253	2	S53614	major prion protei
13	193.5	79.3	253	2	I37032	major prion protei
14	193.5	79.3	253	2	I61847	major prion protei
15	193.5	79.3	253	2	S53616	major prion protei
16	193.5	79.3	254	2	A34759	prion protein - Ch
17	193	79.1	252	2	JC6175	prion protein - ra
18	190.5	78.1	232	2	S71041	major prion protei
19	190.5	78.1	239	2	S53633	major prion protei
20	190.5	78.1	252	2	I61848	major prion protei
21	190.5	78.1	254	1	UJHYIH	major prion PrP-Sc
22	190.5	78.1	254	2	A23544	major prion protei
23	190.5	78.1	260	2	S53629	major prion protei
24	188.5	77.3	252	2	S53631	major prion protei
25	188.5	77.3	253	2	S53618	major prion protei
26	188.5	77.3	253	2	S53619	major prion protei
27	186.5	76.4	226	2	A53892	prion-related prot
28	182.5	74.8	254	2	B34759	prion protein - go
29	180.5	74.0	245	2	S53627	major prion protei
30	180.5	74.0	245	2	S71045	major prion protei
31	180.5	74.0	253	2	S53624	major prion protei
32	180.5	74.0	253	2	S53623	major prion protei
33	180.5	74.0	253	2	S53620	major prion protei
34	180.5	74.0	253	2	S53625	major prion protei
35	180.5	74.0	253	2	I84423	major prion protei
36	180.5	74.0	253	2	S71055	major prion protei
37	179	73.4	257	2	A23545	major prion PrP27-
38	177.5	72.7	241	2	S71056	major prion protei
39	150	61.5	267	1	UJCH	major prion protei
40	150	61.5	267	2	A37372	prion protein homo
41	150	61.5	273	2	A46280	prion protein - ch
42	78.5	32.2	180	2	JC7876	prion protein homo
43	75	30.7	440	2	S71795	transcription fact
44	73	29.9	403	2	A53662	homeotic protein H
45	71.5	29.3	346	1	S35500	heterogeneous ribo

ALIGNMENTS

RESULT 1
JU0268
major prion protein 2 precursor - bovine
N;Alternate names: prion protein, short variant; Prp protein
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_change 09-Jul-2004
C;Accession: JU0268
R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Horiuchi, M.; Imamura, M.; Shinagawa, M.
submitted to JIPID, November 1991
A;Reference number: JT0952
A;Accession: JU0268
A;Molecule type: DNA
A;Residues: 1-256 <YOS>
A;Cross-references: UNIPROT:Q01880
C;Superfamily: major prion protein
C;Keywords: glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-256/Product: major prion protein 2 #status predicted <MAT>
F;60-91/Region: 8-residue repeats
F;182-217/Disulfide bonds: #status predicted
F;184,200/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 88.5%; Score 216; DB 2; Length 256;
Best Local Similarity 95.5%; Pred. No. 6.4e-17;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

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Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131
```

RESULT 2
S37149
prion protein - goat
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S37149
R;Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.
submitted to the EMBL Data Library, August 1993
A;Reference number: S37137
A;Accession: S37149
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-256 <MAR>
A;Cross-references: UNIPROT:P52113; EMBL:X74758; NID:g400442; PIDN:CAA52774.1; PID:g4004
C;Superfamily: major prion protein

Query Match 88.5%; Score 216; DB 2; Length 256;
Best Local Similarity 95.5%; Pred. No. 6.4e-17;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

```
Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
```

```
                    |||||||||||||||||||| |||||||||| ||||||||||||
Db          89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131
```

RESULT 3
A54281
major prion protein - sheep
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: A54281; A35983
R;Westaway, D.; Zuliani, V.; Cooper, C.M.; Da Costa, M.; Neuman, S.; Jenny, A.L.; Detwil
Genes Dev. 8, 959-969, 1994
A;Title: Homozygosity for prion protein alleles encoding glutamine-171 renders sheep sus
A;Reference number: A54281; MUID:95011594; PMID:7926780
A;Accession: A54281
A;Molecule type: DNA
A;Residues: 1-256 <WES>
A;Cross-references: UNIPROT:O46648; GB:X79912; NID:g510442; PIDN:CAA56283.1; PID:g117158
R;Goldmann, W.; Hunter, N.; Foster, J.D.; Salbaum, J.M.; Beyreuther, K.; Hope, J.
Proc. Natl. Acad. Sci. U.S.A. 87, 2476-2480, 1990
A;Title: Two alleles of a neural protein gene linked to scrapie in sheep.
A;Reference number: A35983; MUID:90207218; PMID:1969635
A;Accession: A35983
A;Molecule type: DNA
A;Residues: 1-170,'R',172-256 <GOL>
A;Cross-references: GB:M31313; NID:g166039; PIDN:AAB97765.1; PID:g166040
C;Superfamily: major prion protein

```
  Query Match             88.5%;  Score 216;  DB 2;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 6.4e-17;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| ||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131
```

RESULT 4
A54330
major prion protein 1 precursor - bovine
N;Alternate names: prion protein, long variant; Prp protein
C;Species: Bos primigenius taurus (cattle)
C;Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 09-Jul-2004
C;Accession: A54330; JT0953; JT0952; A48551; S07347; I46931
R;Goldmann, W.; Hunter, N.; Martin, T.; Dawson, M.; Hope, J.
J. Gen. Virol. 72, 201-204, 1991
A;Title: Different forms of the bovine PrP gene have five or six copies of a short, G-C-
A;Reference number: A54330; MUID:91116314; PMID:1671225
A;Accession: A54330
A;Molecule type: DNA
A;Residues: 1-264 <GOL>
A;Cross-references: UNIPROT:P10279; GB:X55882; NID:g683; PIDN:CAA39368.1; PID:g684
R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Horiuchi, M.; Imamura, M.; Shinagawa, M.
submitted to JIPID, November 1991
A;Reference number: JT0952
A;Accession: JT0953
A;Molecule type: DNA
A;Residues: 1-264 <YOS>
A;Cross-references: GB:D10613; NID:g217595; PIDN:BAA01468.1; PID:g217596
A;Accession: JT0952
A;Molecule type: DNA
A;Residues: 1-217,'K',219-264 <YO2>
R;Yoshimoto, J.; Iinuma, T.; Ishiguro, N.; Horiuchi, M.; Imamura, M.; Shinagawa, M.
Virus Genes 6, 343-356, 1992
A;Title: Comparative sequence analysis and expression of bovine PrP gene in mouse L-929
A;Reference number: A48551; MUID:93118243; PMID:1362024
A;Accession: A48551
A;Molecule type: mRNA
A;Residues: 1-217,'K',219-264 <YO3>
A;Cross-references: GB:AB001468; NID:g1888342; PIDN:BAA19253.1; PID:g1888343
A;Experimental source: brain
A;Note: sequence extracted from NCBI backbone (NCBIN:121620, NCBIP:121621)
R;Hope, J.; Reekie, L.J.D.; Hunter, N.; Multhaup, G.; Beyreuther, K.; White, H.; Scott,
Nature 336, 390-392, 1988
A;Title: Fibrils from brains of cows with new cattle disease contain scrapie-associated
A;Reference number: S07347; MUID:89057122; PMID:2904126
A;Accession: S07347
A;Molecule type: protein
A;Residues: 25-36 <HOP>
R;Prusiner, S.B.; Fuzi, M.; Scott, M.; Serban, D.; Serban, H.; Taraboulos, A.; Gabriel,
J. Infect. Dis. 167, 602-613, 1993
A;Title: Immunologic and molecular biologic studies of prion proteins in bovine spongifo
A;Reference number: I46931; MUID:93179783; PMID:8440932
A;Accession: I46931
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-264 <PRU>
A;Cross-references: GB:S55629; NID:g266111; PIDN:AAB25514.1; PID:g266112
C;Genetics:
A;Gene: PrP
C;Superfamily: major prion protein
C;Keywords: glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-264/Product: major prion protein 1 #status predicted <MAT>
F;60-99/Region: 8-residue repeats (W-G-Q-P-H-G-G-G)
F;190-225/Disulfide bonds: #status predicted
F;192,208/Binding site: carbohydrate (Asn) (covalent) #status predicted

```
  Query Match             85.7%;  Score 209;  DB 2;  Length 264;
  Best Local Similarity   90.9%;  Pred. No. 4e-16;
  Matches   40;  Conservative    1;  Mismatches    1;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||:| ||||||| |||||||||| ||||||||||||
Db         97 GGGGWGQGGTHGQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 139
```

RESULT 5
S37137
prion protein - greater kudu
C;Species: Tragelaphus strepsiceros (greater kudu)
C;Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
C;Accession: S37137
R;Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.
submitted to the EMBL Data Library, August 1993
A;Reference number: S37137
A;Accession: S37137
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-264 <MAR>
A;Cross-references: UNIPROT:P40242; EMBL:X74771; NID:g398937; PIDN:CAA52781.1; PID:g398
C;Superfamily: major prion protein

```
  Query Match             85.7%;  Score 209;  DB 2;  Length 264;
  Best Local Similarity   90.9%;  Pred. No. 4e-16;
  Matches   40;  Conservative    1;  Mismatches    1;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||:| ||||||| |||||||||| ||||||||||||
Db         97 GGGGWGQGGTHGQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 139
```

RESULT 6
S53634
major prion protein - common marmoset
C;Species: Callithrix jacchus (common marmoset)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S53634; S71047
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53634
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-252 <SCH>

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A;Cross-references: UNIPROT:P40247; EMBL:U08304
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71047
A;Molecule type: DNA
A;Residues: 1-209,'E',211-252 <SCW>
A;Cross-references: EMBL:U08304; NID:g474366; PIDN:AAC50092.1; PID:g474367
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

  Query Match             80.5%;  Score 196.5;  DB 2;  Length 252;
  Best Local Similarity   90.9%;  Pred. No. 9.5e-15;
  Matches   40;  Conservative    1;  Mismatches    0;  Indels    3;  Gaps    3;

Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:|||||||||| |||||||||| ||||||||||||
Db         85 GGGWGQGGGTHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 127


RESULT 7
JQ1900
major prion protein precursor - European mink
C;Species: Mustela lutreola (European mink)
C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 21-Jul-2000
C;Accession: JQ1900
R;Kretzschmar, H.A.; Neumann, M.; Riethmueller, G.; Prusiner, S.B.
J. Gen. Virol. 73, 2757-2761, 1992
A;Title: Molecular cloning of a mink prion protein gene.
A;Reference number: JQ1900; MUID:93019035; PMID:1383401
A;Accession: JQ1900
A;Molecule type: DNA
A;Residues: 1-257 <KRE>
A;Cross-references: GB:S46825; NID:g258137; PIDN:AAB23801.1; PID:g258138
A;Experimental source: liver
C;Genetics:
A;Gene: PrP
C;Superfamily: major prion protein
F;1-24/Domain: signal sequence #status predicted <SIG>
F;25-257/Product: major prion protein #status predicted <MAT>

  Query Match             80.1%;  Score 195.5;  DB 2;  Length 257;
  Best Local Similarity   88.9%;  Pred. No. 1.3e-14;
  Matches   40;  Conservative    0;  Mismatches    2;  Indels    3;  Gaps    3;

Qy          1 GGGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              ||||||| |||| || |||| |||||||||| ||||||||||||
Db         89 GGGGWGQGGGSHGQWGKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 132


RESULT 8
S71048
major prion protein - Callicebus moloch (fragment)
C;Species: Callicebus moloch
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S71048; S53632
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71048
A;Molecule type: DNA
A;Residues: 1-241 <SCH>
A;Cross-references: UNIPROT:P40248; EMBL:U08312; NID:g475585; PIDN:AAC50100.1; PID:g4755
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53632
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-203,'R',205-240 <SCW>
A;Cross-references: EMBL:U08312
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

  Query Match             79.3%;  Score 193.5;  DB 2;  Length 241;
  Best Local Similarity   88.6%;  Pred. No. 2e-14;
  Matches   39;  Conservative    2;  Mismatches    0;  Indels    3;  Gaps    3;

Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:|:||||||| |||||||||| ||||||||||||
Db         79 GGGWGQGGGTHNQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 121


RESULT 9
UJHU
major prion protein precursor - human
N;Alternate names: 11K amyloid protein; 27-30K sialoglycoprotein; PrP 27-30; PrP 33-35C
C;Species: Homo sapiens (man)
C;Date: 25-Oct-1987 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: A24173; A40372; A05017; S14078; I54322; I68597; I58135; I59184; I79633; I7
R;Kretzschmar, H.A.; Stowring, L.E.; Westaway, D.; Stubblebine, W.H.; Prusiner, S.B.; D
DNA 5, 315-324, 1986
A;Title: Molecular cloning of a human prion protein cDNA.
A;Reference number: A24173; MUID:86300093; PMID:3755672
A;Accession: A24173
A;Molecule type: mRNA
A;Residues: 1-253 <KRE>
A;Cross-references: UNIPROT:P04156; GB:M13899; NID:g190467; PIDN:AAA60182.1; PID:g19046
R;Puckett, C.; Concannon, P.; Casey, C.; Hood, L.
Am. J. Hum. Genet. 49, 320-329, 1991
A;Title: Genomic structure of the human prion protein gene.
A;Reference number: A40372; MUID:91328137; PMID:1678248
A;Accession: A40372
A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-80,89-253 <PUC>
A;Cross-references: GB:X83416; NID:g747846; PIDN:CAA58442.1; PID:g747847
A;Note: the deletion may be a polymorphism; the alternative deletion of 82-89 could not
R;Liao, Y.C.J.; Lebo, R.V.; Clawson, G.A.; Smuckler, E.A.
Science 233, 364-367, 1986
A;Reference number: A05017; MUID:86261778; PMID:3014653
A;Accession: A05017
A;Molecule type: mRNA
A;Residues: 8-117,119-253 <LIA>
A;Cross-references: GB:D00015; NID:g220015; PIDN:BAA00011.1; PID:g220016; GB:M13667; NI
R;Tagliavini, F.; Prelli, F.; Ghiso, J.; Bugiani, O.; Serban, D.; Prusiner, S.B.; Farlo
EMBO J. 10, 513-519, 1991
A;Title: Amyloid protein of Gerstmann-Straeussler-Scheinker disease (Indiana kindred) i
A;Reference number: S14078; MUID:91160504; PMID:1672107
A;Accession: S14078
A;Molecule type: protein
A;Residues: 58-72,'X',74-76,'XX',79,'XXX',83-86;111-128,'V',130-150 <TAG>
R;Diedrich, J.F.; Knopman, D.S.; List, J.F.; Olson, K.; Frey, W.H.
Hum. Mol. Genet. 1, 443-444, 1992
A;Title: Deletion in the prion protein gene in a demented patient.
A;Reference number: I54322; MUID:93250789; PMID:1363802
A;Accession: I54322
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 9-83,92-240 <RES>
A;Cross-references: GB:M81929; NID:g190517; PIDN:AAB59442.1; PID:g190518
A;Accession: I68597
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 8-240 <RE3>
A;Cross-references: GB:M81930; NID:g190519; PIDN:AAB59443.1; PID:g190520
R;Brown, P.; Goldfarb, L.G.; McCombie, W.R.; Nieto, A.; Squillacote, D.; Sheremata, W.;
Neurology 42, 422-427, 1992
A;Title: Atypical Creutzfeldt-Jakob disease in an American family with an insert mutati
A;Reference number: I58135; MUID:92140671; PMID:1736177
A;Accession: I58135
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 51-91,'PHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGG' <RE2>
A;Cross-references: GB:S80539; NID:g244698; PIDN:AAB21334.1; PID:g244699
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R;Goldfarb, L.G.; Brown, P.; McCombie, W.R.; Goldgaber, D.; Swergold, G.D.; Wills, P.R.;
Proc. Natl. Acad. Sci. U.S.A. 88, 10926-10930, 1991
A;Title: Transmissible familial Creutzfeldt-Jakob disease associated with five, seven, a
A;Reference number: I59184; MUID:92073400; PMID:1683708
A;Accession: I59184
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 60-67 <GOL>
A;Cross-references: GB:S71208; NID:g239877; PIDN:AAB20521.1; PID:g239878; GB:S71210; NID
C;Genetics:
A;Gene: GDB:PRNP; CJD; PRIP
A;Cross-references: GDB:120720; OMIM:176640; OMIM:137440
A;Map position: 20pter-20p12
A;Introns: #status absent
A;Note: one intron occurs before the initiator codon
A;Note: this gene is associated with Creutzfeld-Jakob disease (CJD), Gerstmann-Strausler
C;Superfamily: major prion protein
C;Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; phosphatidy
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-230/Product: major prion protein #status predicted <MAT>
F;54-92/Region: 8-residue repeats (P-H-G-G-G-W-G-Q)
F;231-253/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;179-214/Disulfide bonds: #status predicted
F;181,197/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;230/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form

  Query Match             79.3%;  Score 193.5;  DB 1;  Length 253;
  Best Local Similarity   88.6%;  Pred. No. 2.1e-14;
  Matches   39;  Conservative    2;  Mismatches    0;  Indels    3;  Gaps    3;

Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128


RESULT 10
S53617
major prion protein - common gibbon
C;Species: Hylobates lar (common gibbon, white-handed gibbon)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
C;Accession: S53617; S71050
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53617
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: UNIPROT:P61766; EMBL:U08299
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71050
A;Molecule type: DNA
A;Residues: 1-210,'E',212-253 <SCW>
A;Cross-references: EMBL:U08299; NID:g474356; PIDN:AAC50088.1; PID:g474357
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

  Query Match             79.3%;  Score 193.5;  DB 2;  Length 253;
  Best Local Similarity   88.6%;  Pred. No. 2.1e-14;
  Matches   39;  Conservative    2;  Mismatches    0;  Indels    3;  Gaps    3;

Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128


RESULT 11
S53635
prion protein - siamang
C;Species: Hylobates syndactylus (siamang)
C;Date: 15-Jul-1995 #sequence_revision 19-Apr-1996 #text_change 09-Jul-2004
C;Accession: S53635
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53635
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: UNIPROT:P61767; EMBL:U08308; NID:g474374; PIDN:AAC50096.1; PID:g474
A;Note: the source was designated as Symphalangus syndactylus
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, April 1994
C;Superfamily: major prion protein

  Query Match             79.3%;  Score 193.5;  DB 2;  Length 253;
  Best Local Similarity   88.6%;  Pred. No. 2.1e-14;
  Matches   39;  Conservative    2;  Mismatches    0;  Indels    3;  Gaps    3;

Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128


RESULT 12
S53614
major prion protein - gorilla
C;Species: Gorilla gorilla (gorilla)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S53614; S71049
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53614
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: UNIPROT:P40252; EMBL:U08300
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71049
A;Molecule type: DNA
A;Residues: 1-210,'E',212-253 <SCW>
A;Cross-references: EMBL:U08300; NID:g474358; PIDN:AAC50089.1; PID:g474359
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

  Query Match             79.3%;  Score 193.5;  DB 2;  Length 253;
  Best Local Similarity   88.6%;  Pred. No. 2.1e-14;
  Matches   39;  Conservative    2;  Mismatches    0;  Indels    3;  Gaps    3;

Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128


RESULT 13
I37032
major prion protein precursor - gorilla
C;Species: Gorilla gorilla (gorilla)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004
C;Accession: I37032
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.;
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental
A;Reference number: I36907; MUID:95083661; PMID:7991600
A;Accession: I37032
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-253 <RES>
A;Cross-references: UNIPROT:P40252; EMBL:U15166; NID:g563208; PIDN:AAA68633.1; PID:g563
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C;Superfamily: major prion protein

Query Match 79.3%; Score 193.5; DB 2; Length 253;
Best Local Similarity 88.6%; Pred. No. 2.1e-14;
Matches 39; Conservative 2; Mismatches 0; Indels 3; Gaps 3;

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Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128
```

RESULT 14
I61847
major prion protein precursor - chimpanzee
C;Species: Pan troglodytes (chimpanzee)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004
C;Accession: I61847; S71060; S53615
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t
A;Reference number: I36907; MUID:95083661; PMID:7991600
A;Accession: I61847
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-253 <RES>
A;Cross-references: UNIPROT:P61768; EMBL:U15039; NID:g609303; PIDN:AAA68632.1; PID:g6093
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71060
A;Molecule type: DNA
A;Residues: 1-253 <SCW>
A;Cross-references: EMBL:U08296; NID:g474350; PIDN:AAC50085.1; PID:g474351
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53615
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-210,'R',212-253 <SCH>
A;Cross-references: EMBL:U08296
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 79.3%; Score 193.5; DB 2; Length 253;
Best Local Similarity 88.6%; Pred. No. 2.1e-14;
Matches 39; Conservative 2; Mismatches 0; Indels 3; Gaps 3;

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Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128
```

RESULT 15
S53616
major prion protein - orangutan
C;Species: Pongo pygmaeus (orangutan)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S53616; S71059
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53616
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: UNIPROT:P40256; EMBL:U08305
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71059
A;Molecule type: DNA
A;Residues: 1-210,'E',212-253 <SCW>
A;Cross-references: EMBL:U08305; NID:g474368; PIDN:AAC50093.1; PID:g474369
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 79.3%; Score 193.5; DB 2; Length 253;
Best Local Similarity 88.6%; Pred. No. 2.1e-14;
Matches 39; Conservative 2; Mismatches 0; Indels 3; Gaps 3;

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Qy          2 GGGWGQ-GGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||| ||:||||||||| |||||||:|| |||||||||||||
Db         86 GGGWGQGGGTHSQWNKPSK-PKTNMKHMAGAAAAGAVVGGLGGY 128
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Search completed: March 4, 2005, 11:08:02
Job time : 17 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 4, 2005, 11:05:21 ; Search time 56 Seconds
(without alignments)
393.204 Million cell updates/sec

Title: US-09-939-780-3
Perfect score: 244
Sequence: 1 GGGGWGQGGSHSQWNKPSKP.....NMKHVAGAAAGAVVGGLGGY 43

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	216	88.5	181	2	O97911	O97911 budorcas ta
2	216	88.5	197	2	Q6RVI2	Q6rvi2 ovis aries
3	216	88.5	197	2	Q6RVI3	Q6rvi3 ovis aries
4	216	88.5	197	2	Q6RVI4	Q6rvi4 ovis aries
5	216	88.5	197	2	Q6RVI5	Q6rvi5 ovis aries
6	216	88.5	197	2	Q6RVI6	Q6rvi6 ovis aries
7	216	88.5	197	2	Q6RYR6	Q6ryr6 ovis aries
8	216	88.5	202	2	O97908	O97908 capra nubia
9	216	88.5	248	2	Q866V0	Q866v0 orycteropus
10	216	88.5	256	1	PRIO_BUDTA	Q95m08 budorcas ta
11	216	88.5	256	1	PRIO_CAPHI	P52113 capra hircu
12	216	88.5	256	1	PRIO_FELCA	O18754 felis silve
13	216	88.5	256	1	PRIO_OVICA	Q7jih3 ovis canade
14	216	88.5	256	1	PRIO_OVIMO	Q7jiy2 ovibos mosc
15	216	88.5	256	1	PRIO_OVIMU	Q7jk02 ovis orient
16	216	88.5	256	1	PRIO_SHEEP	P23907 ovis aries
17	216	88.5	256	1	PRP2_BOVIN	Q01880 bos taurus
18	216	88.5	256	2	O46648	O46648 capra hircu
19	216	88.5	256	2	Q8SPV5	Q8spv5 capra hircu
20	216	88.5	256	2	Q8SPV6	Q8spv6 capra hircu
21	216	88.5	256	2	Q8SPV7	Q8spv7 capra hircu
22	216	88.5	256	2	Q68G89	Q68g89 capra hircu
23	216	88.5	256	2	Q68G93	Q68g93 ovis aries
24	216	88.5	256	2	Q6V638	Q6v638 ovis aries
25	216	88.5	256	2	Q6V643	Q6v643 ovis aries
26	216	88.5	256	2	Q6V649	Q6v649 ovis aries
27	216	88.5	256	2	Q6V652	Q6v652 ovis aries
28	216	88.5	256	2	Q70KZ9	Q70kz9 ovis aries
29	216	88.5	256	2	Q70L02	Q70l02 ovis aries
30	216	88.5	256	2	Q712V9	Q712v9 ovis aries
31	216	88.5	256	2	Q712W0	Q712w0 ovis aries
32	216	88.5	256	2	Q712W2	Q712w2 ovis aries
33	216	88.5	256	2	Q712W3	Q712w3 ovis aries
34	216	88.5	256	2	Q712W4	Q712w4 ovis aries
35	216	88.5	256	2	Q9TTU5	Q9ttu5 ovis aries
36	216	88.5	256	2	Q9TU07	Q9tu07 ovis aries
37	216	88.5	256	2	Q9TV01	Q9tv01 capra hircu
38	213	87.3	185	2	O97694	O97694 cervus nipp
39	213	87.3	195	2	O97903	O97903 addax nasom
40	213	87.3	204	2	O97629	O97629 odocoileus
41	213	87.3	204	2	Q9TSI8	Q9tsi8 odocoileus
42	213	87.3	211	2	O77787	O77787 antilocapra
43	213	87.3	212	2	O97698	O97698 cervus elap
44	213	87.3	220	2	O02825	O02825 odocoileus
45	213	87.3	220	2	Q7JJ72	Q7jj72 odocoileus

ALIGNMENTS

RESULT 1
O97911
ID O97911 PRELIMINARY; PRT; 181 AA.
AC O97911;
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP;
OS Budorcas taxicolor (Golden takin).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Budorcas.
OX NCBI_TaxID=37181;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=PBL;
RX MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;
RA Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AF117326; AAD19997.1; -.
DR HSSP; P10279; 1DWY.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion_octapep; 5.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
KW Prion.
FT NON_TER 1 1
FT NON_TER 181 181
SQ SEQUENCE 181 AA; 19253 MW; A9001D086442E92A CRC64;

Query Match 88.5%; Score 216; DB 2; Length 181;
Best Local Similarity 95.5%; Pred. No. 9.5e-16;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

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Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         62 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 104
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RESULT 2
Q6RVI2
ID Q6RVI2 PRELIMINARY; PRT; 197 AA.
AC Q6RVI2;
DT 05-JUL-2004 (TrEMBLrel. 27, Created)
DT 05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE PrP protein (Fragment).
GN Name=prp;

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OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22685694; PubMed=12800515;
RA   Tkacikova L., Hanusovska E., Novak M., Arvayova M., Mikula I.;
RT   "The PrP genotype of sheep of the improved Valachian breed.";
RL   Folia Microbiol. (Praha) 48:269-276(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY488862; AAR37333.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     197    197
SQ   SEQUENCE   197 AA;  21141 MW;  2C5890A06F052F1F CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 197;
  Best Local Similarity   95.5%;  Pred. No. 1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| |||||||||||||
Db         84 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 126


RESULT 3
Q6RVI3
ID   Q6RVI3      PRELIMINARY;      PRT;   197 AA.
AC   Q6RVI3;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   PrP protein (Fragment).
GN   Name=prp;
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22685694; PubMed=12800515;
RA   Tkacikova L., Hanusovska E., Novak M., Arvayova M., Mikula I.;
RT   "The PrP genotype of sheep of the improved Valachian breed.";
RL   Folia Microbiol. (Praha) 48:269-276(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY488861; AAR37332.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     197    197
SQ   SEQUENCE   197 AA;  21093 MW;  3D8E54D31F1A200F CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 197;
  Best Local Similarity   95.5%;  Pred. No. 1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| |||||||||||||
Db         84 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 126


RESULT 4
Q6RVI4
ID   Q6RVI4      PRELIMINARY;      PRT;   197 AA.
AC   Q6RVI4;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   PrP protein (Fragment).
GN   Name=prp;
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22685694; PubMed=12800515;
RA   Tkacikova L., Hanusovska E., Novak M., Arvayova M., Mikula I.;
RT   "The PrP genotype of sheep of the improved Valachian breed.";
RL   Folia Microbiol. (Praha) 48:269-276(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY488860; AAR37331.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     197    197
SQ   SEQUENCE   197 AA;  21084 MW;  01775FAF7F1A200C CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 197;
  Best Local Similarity   95.5%;  Pred. No. 1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| |||||||||||||
Db         84 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 126


RESULT 5
Q6RVI5
ID   Q6RVI5      PRELIMINARY;      PRT;   197 AA.
AC   Q6RVI5;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   PrP protein (Fragment).
GN   Name=prp;
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22685694; PubMed=12800515;
RA   Tkacikova L., Hanusovska E., Novak M., Arvayova M., Mikula I.;
RT   "The PrP genotype of sheep of the improved Valachian breed.";
RL   Folia Microbiol. (Praha) 48:269-276(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY488859; AAR37330.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
```

```
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     197    197
SQ   SEQUENCE   197 AA;  21112 MW;  2C588FAF7F1A200F CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 197;
  Best Local Similarity   95.5%;  Pred. No. 1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         84 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 126


RESULT 6
Q6RVI6
ID   Q6RVI6      PRELIMINARY;      PRT;   197 AA.
AC   Q6RVI6;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   PrP protein (Fragment).
GN   Name=prp;
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22685694; PubMed=12800515;
RA   Tkacikova L., Hanusovska E., Novak M., Arvayova M., Mikula I.;
RT   "The PrP genotype of sheep of the improved Valachian breed.";
RL   Folia Microbiol. (Praha) 48:269-276(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY488858; AAR37329.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     197    197
SQ   SEQUENCE   197 AA;  21113 MW;  017740A06F052F1C CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 197;
  Best Local Similarity   95.5%;  Pred. No. 1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         84 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 126


RESULT 7
Q6RYR6
ID   Q6RYR6      PRELIMINARY;      PRT;   197 AA.
AC   Q6RYR6;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Prion protein (Fragment).
GN   Name=prp;
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22685694; PubMed=12800515;
RA   Tkacikova L., Hanusovska E., Novak M., Arvayova M., Mikula I.;
RT   "The PrP genotype of sheep of the improved Valachian breed.";
RL   Folia Microbiol. (Praha) 48:269-276(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY485346; AAR36137.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     197    197
SQ   SEQUENCE   197 AA;  21065 MW;  10A184D31F1A200C CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 197;
  Best Local Similarity   95.5%;  Pred. No. 1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         84 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 126


RESULT 8
O97908
ID   O97908      PRELIMINARY;      PRT;   202 AA.
AC   O97908;
DT   01-MAY-1999 (TrEMBLrel. 10, Created)
DT   01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Prion protein (Fragment).
GN   Name=PrP;
OS   Capra nubiana (Nubian ibex).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Capra.
OX   NCBI_TaxID=72543;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=PBL;
RX   MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;
RA   Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA   Schwarz T.F., Werner T., Schatzl H.M.;
RT   "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT   of flexible regions of the prion protein.";
RL   J. Mol. Biol. 289:1163-1178(1999).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AF117319; AAD19990.1; -.
DR   HSSP; P23907; 1G04.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion.
FT   NON_TER       1      1
FT   NON_TER     202    202
SQ   SEQUENCE   202 AA;  21949 MW;  DB0634A43B4DB77F CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 202;
  Best Local Similarity   95.5%;  Pred. No. 1.1e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
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```
Db         61 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 103


RESULT 9
Q866V0
ID   Q866V0       PRELIMINARY;      PRT;   248 AA.
AC   Q866V0;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE   Prion protein (Fragment).
GN   Name=PRNP;
OS   Orycteropus afer (Aardvark).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Tubulidentata; Orycteropodidae; Orycteropus.
OX   NCBI_TaxID=9818;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22408137; PubMed=12519913; DOI=10.1093/molbev/msg014;
RA   van Rheede T., Smolenaars M.M., Madsen O., De Jong W.W.;
RT   "Molecular evolution of the mammalian prion protein.";
RL   Mol. Biol. Evol. 20:111-121(2003).
CC   -!- SIMILARITY: Belongs to the prion family.
DR   EMBL; AY133058; AAN16512.1; -.
DR   HSSP; P23907; 1G04.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion.
FT   NON_TER     248    248
SQ   SEQUENCE   248 AA;  26844 MW;  B29D69FA8972AA2E CRC64;

  Query Match             88.5%;  Score 216;  DB 2;  Length 248;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| |||||||||||||
Db         90 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 132


RESULT 10
PRIO_BUDTA
ID   PRIO_BUDTA     STANDARD;      PRT;   256 AA.
AC   Q95M08;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Major prion protein precursor (PrP).
GN   Name=PRNP;
OS   Budorcas taxicolor (Golden takin).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Budorcas.
OX   NCBI_TaxID=37181;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=11805443; DOI=10.1159/000050072;
RA   Seo S.W., Hara K., Kubosaki A., Nasu Y., Nishimura T., Saeki K.,
RA   Matsumoto Y., Endo H., Onodera T.;
RT   "Comparative analysis of the prion protein open reading frame
RT   nucleotide sequences of two wild ruminants, the moufflon and golden
RT   takin.";
RL   Intervirology 44:359-363(2001).
CC   -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC       host genome and is expressed both in normal and infected cells (By
CC       similarity).
CC   -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC       "rods" (By similarity).
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the prion family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AB060290; BAB69957.1; -.
DR   HSSP; P10279; 1DWY.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW   Signal.
FT   SIGNAL        1     24       By similarity.
FT   CHAIN        25    233       Major prion protein.
FT   PROPEP      234    256       Removed in mature form (Potential).
FT   LIPID       233    233       GPI-anchor amidated alanine (Potential).
FT   CARBOHYD    184    184       N-linked (GlcNAc. . .) (Probable).
FT   CARBOHYD    200    200       N-linked (GlcNAc. . .) (Probable).
FT   DISULFID    182    217       By similarity.
FT   DOMAIN       54     95       5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
SQ   SEQUENCE   256 AA;  27860 MW;  527E3232CD90BCD7 CRC64;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 11
PRIO_CAPHI
ID   PRIO_CAPHI     STANDARD;      PRT;   256 AA.
AC   P52113;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Major prion protein precursor (PrP).
GN   Name=PRNP; Synonyms=PRP;
OS   Capra hircus (Goat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Capra.
OX   NCBI_TaxID=9925;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Anglo-Nubian; TISSUE=Peripheral blood lymphocytes;
RA   Martin T.C., Hughes S.L., Hughes K.J., Dawson M.;
RL   Submitted (SEP-1993) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE FROM N.A., AND VARIANT MET-142.
RC   STRAIN=Anglo-Nubian;
RX   MEDLINE=97081203; PubMed=8922485;
RA   Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,
RA   Dawson M., Hunter N.;
RT   "Novel polymorphisms in the caprine PrP gene: a codon 142 mutation
```

```
RT   associated with scrapie incubation period.";
RL   J. Gen. Virol. 77:2885-2891(1996).
RN   [3]
RP   ERRATUM.
RA   Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,
RA   Dawson M., Hunter N.;
RL   J. Gen. Virol. 78:697-697(1997).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=African dwarf; TISSUE=Blood;
RX   MEDLINE=96356540; PubMed=8746958;
RA   Obermaier G., Kretzschmar H.A., Hafner A., Heubeck D., Dahme E.;
RT   "Spongiform central nervous system myelinopathy in African dwarf
RT   goats.";
RL   J. Comp. Pathol. 113:357-372(1995).
CC   -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC       host genome and is expressed both in normal and infected cells.
CC   -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC       "rods".
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC   -!- DISEASE: Polymorphism at position 171 may be related to the
CC       alleles of scarpie incubation-control (SIC) gene in this species.
CC   -!- DISEASE: Found in high quantity in the brain of humans and animals
CC       infected with degenerative neurological diseases such as kuru,
CC       Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome
CC       (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC       transmissible mink encephalopathy (TME), etc.
CC   -!- SIMILARITY: Belongs to the prion family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X74758; CAA52774.1; -.
DR   EMBL; X91999; CAA63050.1; -.
DR   EMBL; S82626; AAD14409.1; -.
DR   PIR; S37149; S37149.
DR   HSSP; P23907; 1G04.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Polymorphism; Prion;
KW   Repeat; Signal.
FT   SIGNAL       1    24       By similarity.
FT   CHAIN       25   233       Major prion protein.
FT   PROPEP     234   256       Removed in mature form (Potential).
FT   LIPID      233   233       GPI-anchor amidated alanine (Potential).
FT   CARBOHYD   184   184       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD   200   200       N-linked (GlcNAc. . .) (Potential).
FT   DISULFID   182   217       By similarity.
FT   DOMAIN      54    95       5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT                              Q.
FT   REPEAT      54    62       1.
FT   REPEAT      63    70       2.
FT   REPEAT      71    78       3.
FT   REPEAT      79    86       4.
FT   REPEAT      87    95       5.
FT   VARIANT    142   142       I -> M (appears to be associated with
FT                              differing disease incubation periods in
FT                              goats experimentally infected with
FT                              isolates of bovine spongiform
FT                              encephalopathy or sheep scrapie).
SQ   SEQUENCE   256 AA;  27897 MW;  BDA5795F6FD99746 CRC64;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| ||||||||| ||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 12
PRIO_PELCA
ID   PRIO_PELCA     STANDARD;      PRT;   256 AA.
AC   O18754; O19016;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Major prion protein precursor (PrP).
GN   Name=PRNP; Synonyms=PRP;
OS   Felis silvestris catus (Cat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Blood, and Brain;
RA   Rohwer R.G., Edelman D., Protzman J.L.;
RL   Submitted (MAY-1997) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE OF 112-235 FROM N.A.
RA   Taylor M.S., Newton D.J., Flanagan B.F., Christmas S.E.;
RL   Submitted (JUN-1997) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC       host genome and is expressed both in normal and infected cells.
CC   -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC       "rods".
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC   -!- DISEASE: PrP is found in high quantity in the brain of humans and
CC       animals infected with the degenerative neurological diseases kuru,
CC       Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome
CC       (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC       transmissible mink encephalopathy (TME), etc.
CC   -!- SIMILARITY: Belongs to the prion family.
CC   -!- CAUTION: Ref.1 sequence seems to be incorrect, it is too close in
CC       sequence to that of sheep to be taxonomically correct. We have
CC       used Ref.2 sequence in the region where it is available (112-235),
CC       but the rest of the sequence probably contains incorrect residues.
CC   -!- DATABASE: NAME=Cat PRP; NOTE=Web page on cat sequence problems;
CC       WWW="http://www.mad-cow.org/~tom/cat_prion.html".
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF003087; AAB70468.1; -.
DR   EMBL; Y13698; CAA74032.1; -.
DR   HSSP; P23907; 1G04.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW   Signal.
FT   SIGNAL       1    24       By similarity.
FT   CHAIN       25   233       Major prion protein.
FT   PROPEP     234   256       Removed in mature form (Potential).
FT   LIPID      233   233       GPI-anchor amidated alanine (Potential).
FT   CARBOHYD   184   184       N-linked (GlcNAc. . .) (Potential).
FT   CARBOHYD   200   200       N-linked (GlcNAc. . .) (Potential).
FT   DISULFID   182   217       By similarity.
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FT   DOMAIN       54     95       5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
FT   CONFLICT    162    162       D -> N (in Ref. 1).
FT   CONFLICT    180    180       R -> H (in Ref. 1).
FT   CONFLICT    190    190       R -> H (in Ref. 1).
FT   CONFLICT    206    206       M -> I (in Ref. 1).
FT   CONFLICT    218    218       V -> I (in Ref. 1).
FT   CONFLICT    223    223       K -> R (in Ref. 1).
FT   CONFLICT    232    232       R -> G (in Ref. 1).
FT   CONFLICT    235    235       A -> V (in Ref. 1).
SQ   SEQUENCE   256 AA;  27975 MW;  7C687C3BCE6BEBB9 CRC64;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 13
PRIO_OVICA
ID   PRIO_OVICA     STANDARD;      PRT;   256 AA.
AC   Q7JIH3;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Major prion protein precursor (PrP).
GN   Name=PRNP;
OS   Ovis canadensis (Bighorn sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=37174;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RA   O'Rourke K.I., Spraker T.R., Wild M.A., Miller M.W.;
RT   "PrP gene sequence for big horn sheep (Ovis canadensis).";
RL   Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC       host genome and is expressed both in normal and infected cells (By
CC       similarity).
CC   -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC       "rods" (By similarity).
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the prion family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF166334; AAD48030.1; -.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW   Signal.
FT   SIGNAL        1     24       By similarity.
FT   CHAIN        25    233       Major prion protein.
FT   PROPEP      234    256       Removed in mature form (Potential).
FT   LIPID       233    233       GPI-anchor amidated alanine (Potential).
FT   CARBOHYD    184    184       N-linked (GlcNAc. . .) (Probable).
FT   CARBOHYD    200    200       N-linked (GlcNAc. . .) (Probable).
FT   DISULFID    182    217       By similarity.
FT   DOMAIN       54     95       5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
SQ   SEQUENCE   256 AA;  27887 MW;  BFC8E95F6FD99746 CRC64;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 14
PRIO_OVIMO
ID   PRIO_OVIMO     STANDARD;      PRT;   256 AA.
AC   Q7JIY2;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Major prion protein precursor (PrP).
GN   Name=PRNP;
OS   Ovibos moschatus (Muskox).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovibos.
OX   NCBI_TaxID=37176;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99303687; PubMed=10373359; DOI=10.1006/jmbi.1999.2831;
RA   Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA   Schwarz T.F., Werner T., Schatzl H.M.;
RT   "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT   of flexible regions of the prion protein.";
RL   J. Mol. Biol. 289:1163-1178(1999).
CC   -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC       host genome and is expressed both in normal and infected cells (By
CC       similarity).
CC   -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC       "rods" (By similarity).
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the prion family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF117320; AAD19991.1; -.
DR   InterPro; IPR000817; Prion.
DR   Pfam; PF00377; Prion; 1.
DR   Pfam; PF03991; Prion_octapep; 5.
DR   PRINTS; PR00341; PRION.
DR   SMART; SM00157; PRP; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW   Signal.
FT   SIGNAL        1     24       By similarity.
FT   CHAIN        25    233       Major prion protein.
FT   PROPEP      234    256       Removed in mature form (Potential).
FT   LIPID       233    233       GPI-anchor amidated alanine (Potential).
```

```
FT   CARBOHYD    184    184       N-linked (GlcNAc. . .) (Probable).
FT   CARBOHYD    200    200       N-linked (GlcNAc. . .) (Probable).
FT   DISULFID    182    217       By similarity.
FT   DOMAIN       54     95       5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
SQ   SEQUENCE   256 AA;  27887 MW;  BFC8E95F6FD99746 CRC64;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 15
PRIO_OVIMU
ID   PRIO_OVIMU     STANDARD;      PRT;   256 AA.
AC   Q7JK02;
DT   25-OCT-2004 (Rel. 45, Created)
DT   25-OCT-2004 (Rel. 45, Last sequence update)
DT   25-OCT-2004 (Rel. 45, Last annotation update)
DE   Major prion protein precursor (PrP).
GN   Name=PRNP;
OS   Ovis orientalis musimon (Mouflon).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC   Caprinae; Ovis.
OX   NCBI_TaxID=9938;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   PubMed=11805443; DOI=10.1159/000050072;
RA   Seo S.W., Hara K., Kubosaki A., Nasu Y., Nishimura T., Saeki K.,
RA   Matsumoto Y., Endo H., Onodera T.;
RT   "Comparative analysis of the prion protein open reading frame
RT   nucleotide sequences of two wild ruminants, the moufflon and golden
RT   takin.";
RL   Intervirology 44:359-363(2001).
CC   -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC       host genome and is expressed both in normal and infected cells (By
CC       similarity).
CC   -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC       "rods" (By similarity).
CC   -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the prion family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AB060288; BAB69955.1; -.
DR   EMBL; AB060289; BAB69956.1; -.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW   Signal.
FT   SIGNAL        1     24       By similarity.
FT   CHAIN        25    233       Major prion protein.
FT   PROPEP      234    256       Removed in mature form (Potential).
FT   LIPID       233    233       GPI-anchor amidated alanine (Potential).
FT   CARBOHYD    184    184       N-linked (GlcNAc. . .) (Probable).
FT   CARBOHYD    200    200       N-linked (GlcNAc. . .) (Probable).
FT   DISULFID    182    217       By similarity.
FT   DOMAIN       54     95       5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
SQ   SEQUENCE   256 AA;  27887 MW;  BFC8E95F6FD99746 CRC64;

  Query Match             88.5%;  Score 216;  DB 1;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 1.3e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
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Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


Search completed: March  4, 2005, 11:07:41
Job time : 58 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: March 4, 2005, 11:05:21 ; Search time 133 Seconds
(without alignments)
106.383 Million cell updates/sec

Title: US-09-939-780-3
Perfect score: 244
Sequence: 1 GGGGWGQGGSHSQWNKPSKP.....NMKHVAGAAAGAVVGGLGGY 43

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1391452 seqs, 329044822 residues

Total number of hits satisfying chosen parameters: 1391452

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published_Applications_AA:*
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2: /cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep:*
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18: /cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.pep:*
19: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
20: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	244	100.0	43	9	US-09-147-761-3	Sequence 3, Appli
2	244	100.0	43	9	US-09-939-780-3	Sequence 3, Appli
3	216	88.5	255	9	US-09-943-906-4	Sequence 4, Appli
4	216	88.5	255	15	US-10-435-602-4	Sequence 4, Appli
5	216	88.5	256	9	US-09-823-494-22	Sequence 22, Appl
6	216	88.5	256	13	US-10-109-551-4	Sequence 4, Appli
7	216	88.5	256	14	US-10-301-488A-28	Sequence 28, Appl
8	216	88.5	256	14	US-10-105-616-5	Sequence 5, Appli
9	216	88.5	256	15	US-10-410-907A-11	Sequence 11, Appl
10	216	88.5	256	15	US-10-410-907A-12	Sequence 12, Appl
11	216	88.5	256	15	US-10-346-190-81	Sequence 81, Appl
12	216	88.5	256	15	US-10-346-190-88	Sequence 88, Appl
13	216	88.5	256	15	US-10-301-448-28	Sequence 28, Appl
14	216	88.5	256	16	US-10-479-218-1	Sequence 1, Appli
15	216	88.5	256	16	US-10-479-218-6	Sequence 6, Appli
16	216	88.5	256	16	US-10-479-218-7	Sequence 7, Appli
17	216	88.5	256	16	US-10-479-218-8	Sequence 8, Appli
18	216	88.5	256	16	US-10-479-218-9	Sequence 9, Appli
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22	216	88.5	256	16	US-10-479-218-13	Sequence 13, Appl
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29	216	88.5	256	16	US-10-479-218-20	Sequence 20, Appl
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31	213	87.3	256	13	US-10-109-551-8	Sequence 8, Appli
32	213	87.3	256	13	US-10-109-551-10	Sequence 10, Appl
33	213	87.3	256	15	US-10-346-190-82	Sequence 82, Appl
34	213	87.3	256	15	US-10-346-190-83	Sequence 83, Appl
35	211	86.5	256	14	US-10-301-488A-29	Sequence 29, Appl
36	211	86.5	256	15	US-10-301-448-29	Sequence 29, Appl
37	210	86.1	256	14	US-10-304-630-25	Sequence 25, Appl
38	210	86.1	256	14	US-10-304-630-28	Sequence 28, Appl
39	210	86.1	256	16	US-10-479-218-5	Sequence 5, Appli
40	209	85.7	256	13	US-10-109-551-2	Sequence 2, Appli
41	209	85.7	256	16	US-10-479-218-3	Sequence 3, Appli
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44	209	85.7	264	9	US-09-823-494-21	Sequence 21, Appl
45	209	85.7	264	14	US-10-209-194-2	Sequence 2, Appli

ALIGNMENTS

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RESULT 1
US-09-147-761-3
; Sequence 3, Application US/09147761
; Patent No. US20010010918A1
;  GENERAL INFORMATION:
;    APPLICANT:
;    TITLE OF INVENTION:  IMMUNOLOGICAL ASSAY FOR SPONGIFORM
;    TITLE OF INVENTION:  ENCEPHALOPATHIES
;    NUMBER OF SEQUENCES:  4
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30 (EPO)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/147,761
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  WO IE/98/00007
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CHRISTINA GATES
;      REFERENCE/DOCKET NUMBER:  PL678pct
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  353-1-6605033
;      TELEFAX:  353-1-6606920
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  43
;      TYPE:  amino acid
;      TOPOLOGY:  unknown
;    MOLECULE TYPE:  Amino acid
;    HYPOTHETICAL:
;    ANTI-SENSE:
;    ORIGINAL SOURCE:
;      ORGANISM:
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;      CELL TYPE:
US-09-147-761-3

  Query Match             100.0%;  Score 244;  DB 9;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.7e-18;
  Matches   43;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 2
US-09-939-780-3
; Sequence 3, Application US/09939780
; Patent No. US20020168689A1
; GENERAL INFORMATION:
;  APPLICANT: O'Connor, Michael
;  TITLE OF INVENTION: Immunological Assay for Spongiform Encephalopathies
;  FILE REFERENCE: 50002US
;  CURRENT APPLICATION NUMBER: US/09/939,780
;  CURRENT FILING DATE:  2001-08-28
;  PRIOR APPLICATION NUMBER: 09/147,761
;  PRIOR FILING DATE: 1999-03-03
;  PRIOR APPLICATION NUMBER: PCT/IE98/00007
;  PRIOR FILING DATE: 1998-02-06
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
;   LENGTH: 43
;   TYPE: PRT
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:prion protein
;   OTHER INFORMATION: specific synthetic peptide
US-09-939-780-3

  Query Match             100.0%;  Score 244;  DB 9;  Length 43;
  Best Local Similarity   100.0%;  Pred. No. 1.7e-18;
  Matches   43;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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RESULT 3
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; Sequence 4, Application US/09943906
; Patent No. US20020150571A1
;   GENERAL INFORMATION:
;        APPLICANT: Prusiner, Stanley B.
;                   Williamson, R. Anthony
;                   Burton, Dennis R.
;        TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
;        NUMBER OF SEQUENCES: 86
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: Fish & Richardson P.C.
;             STREET: 2200 Sand Hill Road
;             CITY: Menlo Park
;             STATE: CA
;             COUNTRY: U.S.A.
;             ZIP: 94025
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Diskette
;             COMPUTER: IBM Compatible
;             OPERATING SYSTEM: DOS
;             SOFTWARE: FastSEQ Version 2.0
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/943,906
;             FILING DATE: 30-Aug-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 09/550,374
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Bozicevic, Karl
;             REGISTRATION NUMBER: 28,807
;             REFERENCE/DOCKET NUMBER: 06510/059001
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: 415-854-5277
;             TELEFAX: 415-854-0875
;             TELEX: <Unknown>
;   INFORMATION FOR SEQ ID NO: 4:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 255 amino acids
;             TYPE: amino acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: peptide
;        SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-943-906-4

  Query Match             88.5%;  Score 216;  DB 9;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 4
US-10-435-602-4
; Sequence 4, Application US/10435602
; Publication No. US20030228303A1
; GENERAL INFORMATION:
;  APPLICANT: Prusiner, Stanley B.
;  APPLICANT:  Williamson, R. Anthony
;  APPLICANT:  Burton, Dennis R.
;  TITLE OF INVENTION: Antibodies Specific for Native PrPSc
;  FILE REFERENCE: UCAL059CON3
;  CURRENT APPLICATION NUMBER: US/10/435,602
;  CURRENT FILING DATE:  2003-05-09
;  PRIOR APPLICATION NUMBER: 09/943,906
;  PRIOR FILING DATE: 2001-08-30
;  PRIOR APPLICATION NUMBER: 09/550,374
;  PRIOR FILING DATE: 2000-04-13
;  PRIOR APPLICATION NUMBER: 09/036,579
;  PRIOR FILING DATE: 1998-03-06
;  PRIOR APPLICATION NUMBER: 08/713,939
;  PRIOR FILING DATE: 1996-09-13
;  PRIOR APPLICATION NUMBER: 08/528,104
;  PRIOR FILING DATE: 1995-09-14
;  NUMBER OF SEQ ID NOS: 86
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 255
;   TYPE: PRT
;   ORGANISM: ovine
US-10-435-602-4

  Query Match             88.5%;  Score 216;  DB 15;  Length 255;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| ||||||||||||
Db         88 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 130


RESULT 5
US-09-823-494-22
; Sequence 22, Application US/09823494
; Publication No. US20010041790A1
; GENERAL INFORMATION:
```

; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis aries
US-09-823-494-22

Query Match 88.5%; Score 216; DB 9; Length 256;
Best Local Similarity 95.5%; Pred. No. 7.8e-15;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

RESULT 6
US-10-109-551-4
; Sequence 4, Application US/10109551
; Publication No. US20020194635A1
; GENERAL INFORMATION:
; APPLICANT: DUNNE, PATRICK W.
; APPLICANT: PIEDRAHITA, JORGE
; TITLE OF INVENTION: TRANSGENIC ANIMALS RESISTANT TO TRANSMISSIBLE
; TITLE OF INVENTION: SPONGIFORM ENCEPHALOPATHIES
; FILE REFERENCE: TAMK:207US
; CURRENT APPLICATION NUMBER: US/10/109,551
; CURRENT FILING DATE: 2002-03-28
; PRIOR APPLICATION NUMBER: 60/280,549
; PRIOR FILING DATE: 2001-03-30
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 4
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis aries
US-10-109-551-4

Query Match 88.5%; Score 216; DB 13; Length 256;
Best Local Similarity 95.5%; Pred. No. 7.8e-15;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

RESULT 7
US-10-301-488A-28
; Sequence 28, Application US/10301488A
; Publication No. US20030166558A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,488A
; CURRENT FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/331,801
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 28
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Sheep
US-10-301-488A-28

Query Match 88.5%; Score 216; DB 14; Length 256;
Best Local Similarity 95.5%; Pred. No. 7.8e-15;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

RESULT 8
US-10-105-616-5
; Sequence 5, Application US/10105616
; Publication No. US20030175967A1
; GENERAL INFORMATION:
; APPLICANT: Geron Corporation
; APPLICANT: Clark, A. J.
; APPLICANT: Denning, Chris
; APPLICANT: Cui, Wei
; APPLICANT: Zhao, Debbiao
; TITLE OF INVENTION: Vectors for Telomerizing Nuclear Donor Cells and Improving the E
; TITLE OF INVENTION: of Nuclear Transfer
; FILE REFERENCE: 732/002
; CURRENT APPLICATION NUMBER: US/10/105,616
; CURRENT FILING DATE: 2003-01-31
; PRIOR APPLICATION NUMBER: US Provisional Application 60/277,749
; PRIOR FILING DATE: 2001-03-21
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 256
; TYPE: PRT
; ORGANISM: Ovis sp.
US-10-105-616-5

Query Match 88.5%; Score 216; DB 14; Length 256;
Best Local Similarity 95.5%; Pred. No. 7.8e-15;
Matches 42; Conservative 0; Mismatches 0; Indels 2; Gaps 2;

Qy 1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
||||||||||||||||||| |||||||||| ||||||||||||
Db 89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

RESULT 9
US-10-410-907A-11
; Sequence 11, Application US/10410907A
; Publication No. US20030215880A1
; GENERAL INFORMATION:
; APPLICANT: Dennis R. Burton
; APPLICANT: R. Anthony Williamson
; APPLICANT: Gianluca Moroncini
; TITLE OF INVENTION: MOTIF-GRAFTED HYBRID POLYPEPTIDES AND
; TITLE OF INVENTION: USES THEREOF
; FILE REFERENCE: 22908-1229
; CURRENT APPLICATION NUMBER: US/10/410,907A
; CURRENT FILING DATE: 2003-04-08
; PRIOR APPLICATION NUMBER: 60/371,610
; PRIOR FILING DATE: 2002-04-09
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 256

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;   TYPE: PRT
;   ORGANISM: Ovis aries  (Sheep)
US-10-410-907A-11

  Query Match             88.5%;  Score 216;  DB 15;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 10
US-10-410-907A-12
; Sequence 12, Application US/10410907A
; Publication No. US20030215880A1
; GENERAL INFORMATION:
;  APPLICANT: Dennis R. Burton
;  APPLICANT:  R. Anthony Williamson
;  APPLICANT:  Gianluca Moroncini
;  TITLE OF INVENTION: MOTIF-GRAFTED HYBRID POLYPEPTIDES AND
;  TITLE OF INVENTION:  USES THEREOF
;  FILE REFERENCE: 22908-1229
;  CURRENT APPLICATION NUMBER: US/10/410,907A
;  CURRENT FILING DATE:  2003-04-08
;  PRIOR APPLICATION NUMBER: 60/371,610
;  PRIOR FILING DATE: 2002-04-09
;  NUMBER OF SEQ ID NOS: 36
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 12
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Ovis aries  (Sheep)
;   FEATURE:
;   NAME/KEY: VARIANT
;   LOCATION: 171
;   OTHER INFORMATION: R to Q
US-10-410-907A-12

  Query Match             88.5%;  Score 216;  DB 15;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 11
US-10-346-190-81
; Sequence 81, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
;  APPLICANT: Bachmann, Martin
;  APPLICANT:  Maurer, Patrick
;  APPLICANT:  Pellicioli, Erica
;  APPLICANT:  Renner, Wolfgang A.
;  TITLE OF INVENTION: Prion Protein Carrier-Conjugates
;  FILE REFERENCE: 1700.0290003
;  CURRENT APPLICATION NUMBER: US/10/346,190
;  CURRENT FILING DATE:  2003-01-17
;  PRIOR APPLICATION NUMBER: 60/396,590
;  PRIOR FILING DATE: 2002-07-18
;  PRIOR APPLICATION NUMBER: 60/393,725
;  PRIOR FILING DATE: 2002-07-08
;  PRIOR APPLICATION NUMBER: 60/389,898
;  PRIOR FILING DATE: 2002-06-20
;  PRIOR APPLICATION NUMBER: PCT/IB02/00166
;  PRIOR FILING DATE: 2002-01-21
;  PRIOR APPLICATION NUMBER: 10/050,902
;  PRIOR FILING DATE: 2002-01-18
;  NUMBER OF SEQ ID NOS: 164
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 81
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Sheep PRP
US-10-346-190-81

  Query Match             88.5%;  Score 216;  DB 15;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 12
US-10-346-190-88
; Sequence 88, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
;  APPLICANT: Bachmann, Martin
;  APPLICANT:  Maurer, Patrick
;  APPLICANT:  Pellicioli, Erica
;  APPLICANT:  Renner, Wolfgang A.
;  TITLE OF INVENTION: Prion Protein Carrier-Conjugates
;  FILE REFERENCE: 1700.0290003
;  CURRENT APPLICATION NUMBER: US/10/346,190
;  CURRENT FILING DATE:  2003-01-17
;  PRIOR APPLICATION NUMBER: 60/396,590
;  PRIOR FILING DATE: 2002-07-18
;  PRIOR APPLICATION NUMBER: 60/393,725
;  PRIOR FILING DATE: 2002-07-08
;  PRIOR APPLICATION NUMBER: 60/389,898
;  PRIOR FILING DATE: 2002-06-20
;  PRIOR APPLICATION NUMBER: PCT/IB02/00166
;  PRIOR FILING DATE: 2002-01-21
;  PRIOR APPLICATION NUMBER: 10/050,902
;  PRIOR FILING DATE: 2002-01-18
;  NUMBER OF SEQ ID NOS: 164
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 88
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Goat PRP
US-10-346-190-88

  Query Match             88.5%;  Score 216;  DB 15;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 13
US-10-301-448-28
; Sequence 28, Application US/10301448
; Publication No. US20040095964A1
; GENERAL INFORMATION:
;  APPLICANT: FRANGIONE, Blas
;  APPLICANT:  WISNIEWSKI, Thomas
;  APPLICANT:  SIGURDSSON, Einar
;  TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
;  TITLE OF INVENTION:  PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
;  TITLE OF INVENTION:  ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
;  TITLE OF INVENTION:  IMMUNE RESPONSE THERETO
;  FILE REFERENCE: 5986/1K434US1
;  CURRENT APPLICATION NUMBER: US/10/301,448
;  CURRENT FILING DATE:  2003-02-21
;  PRIOR APPLICATION NUMBER: US 60/331,801
;  PRIOR FILING DATE: 2001-11-21
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;  NUMBER OF SEQ ID NOS: 55
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 28
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Sheep
US-10-301-448-28

  Query Match             88.5%;  Score 216;  DB 15;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 14
US-10-479-218-1
; Sequence 1, Application US/10479218
; Publication No. US20040171082A1
; GENERAL INFORMATION:
;  APPLICANT: The Secretary of State for Environment, Food & Rural Affairs (DEFRA)
;  APPLICANT:  Jeffrey, Martin
;  TITLE OF INVENTION: Diagnostic method
;  FILE REFERENCE: CG/P/135/WOD
;  CURRENT APPLICATION NUMBER: US/10/479,218
;  CURRENT FILING DATE:  2003-12-01
;  PRIOR APPLICATION NUMBER: GB 0113156.4
;  PRIOR FILING DATE: 2001-05-31
;  NUMBER OF SEQ ID NOS: 20
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Ovis aries
US-10-479-218-1

  Query Match             88.5%;  Score 216;  DB 16;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131


RESULT 15
US-10-479-218-6
; Sequence 6, Application US/10479218
; Publication No. US20040171082A1
; GENERAL INFORMATION:
;  APPLICANT: The Secretary of State for Environment, Food & Rural Affairs (DEFRA)
;  APPLICANT:  Jeffrey, Martin
;  TITLE OF INVENTION: Diagnostic method
;  FILE REFERENCE: CG/P/135/WOD
;  CURRENT APPLICATION NUMBER: US/10/479,218
;  CURRENT FILING DATE:  2003-12-01
;  PRIOR APPLICATION NUMBER: GB 0113156.4
;  PRIOR FILING DATE: 2001-05-31
;  NUMBER OF SEQ ID NOS: 20
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Ovis aries
US-10-479-218-6

  Query Match             88.5%;  Score 216;  DB 16;  Length 256;
  Best Local Similarity   95.5%;  Pred. No. 7.8e-15;
  Matches   42;  Conservative    0;  Mismatches    0;  Indels    2;  Gaps    2;

Qy          1 GGGGWGQGGSHSQWNKPSKPPKTNMKHVAG-AAAGAVVGGLGGY 43
              |||||||||||||||||| |||||||||| |||||||||||||
Db         89 GGGGWGQGGSHSQWNKPSK-PKTNMKHVAGAAAAGAVVGGLGGY 131

Search completed: March  4, 2005, 11:10:21
Job time : 134 secs
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